

SD Times

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Microsoft shows its hand on XAML Opens specification to third-party developers

BY DAVID WORTHINGTON

Microsoft is showing off one more facet of its once-hidden intellectual property. The company last month placed the preliminary technical specifications for XAML—the Extensible Application Markup Language—under its Open Specification Promise, or OSP.

The technical documentation will let third parties implement XAML formats in their client, server and tool products. Included are both the 2006 implementation of Microsoft's XAML object mapping specification and the vocabulary specification for Windows Presentation Foundation (WPF).



A spokesperson for Microsoft said that the final XAML documentation would be published by June 30.

XAML is a declarative XML-based language used to define data binding, events and user

.NET, by increasing transparency and forming an ecosystem of designers and developers around it, said Tom Robertson, general manager of interoperability and standards at Microsoft.

"The lifeblood of any application is its third-party ecosystem," said Yankee Group analyst Laura DiDio, who added that the obvious reasons to document XAML were for compatibility, interoperability and integrations with other applications.

Microsoft has to abide by self-imposed interoperability principles to ensure open connections, promote data portability, support industry standards and openly

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Linux, Mac developers get home-brewed open-source alternative to Visual Studio

BY DAVID WORTHINGTON

The Mono team has taken a step forward in its bid to bridge at least one digital divide—the one

between developers that write .NET applications using Microsoft's platform and those working with other environments.



The first production version of MonoDevelop, an open-source alternative to Microsoft Visual Studio, was released last month. With it, developers can build .NET applications on the BSD, Linux, Macintosh, Solaris and Windows platforms. It accepts Visual Studio project formats and has language support for CIL (C Intermediate Language), C++, C# and Visual Basic.NET.

But with firm roots in Linux, it's not just a development platform for Windows. Other languages are supported, including Boo, Java and Nemerle, and it

bundles a user interface designer based on Gtk#, which is a set of .NET bindings for the GTK+ GUI toolkit and assorted GNOME libraries for building applications.

Matt Hargett, an eXtreme Programming consultant and co-founder of BugScan, which was purchased by LogicLibrary in 2004, said in an e-mail that MonoDevelop's language support advantage over Visual Studio makes it easier to reuse code developed in Boo, Python, Java and Ruby into projects and compile them as .NET assemblies.

"This is an obvious huge advantage over Visual Studio's approach, where alternate language support doesn't seem to be taken nearly as seriously," he remarked. Microsoft

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SPECIAL REPORT

ALM expands its palette

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ORACLE BUYS E-TEST SUITE FROM EMPIRIX

BY ROBERT MULLINS

With Web applications growing in importance, Oracle has shored up its application testing effort by acquiring Empirix's e-TEST suite. The technology will be incorporated into Oracle Enterprise Manager and Oracle Real Application Testing, according to a company announcement. Financial terms of the sale were not disclosed.

Instead of merely partnering, the deal gives Oracle ownership of a software tool that the company needs to improve the limited database-focused testing capabilities in Real Application Testing, an industry analyst said.

The e-TEST suite is made up of e-Manager Enterprise for test process management, e-Tester for functional and regressive testing and e-Load, for measuring scalability under a variety of loading

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Melinda-Carol Ballou eyes services life-cycle management strategy.

Eclipse Foundation's next frontier:
industry verticals

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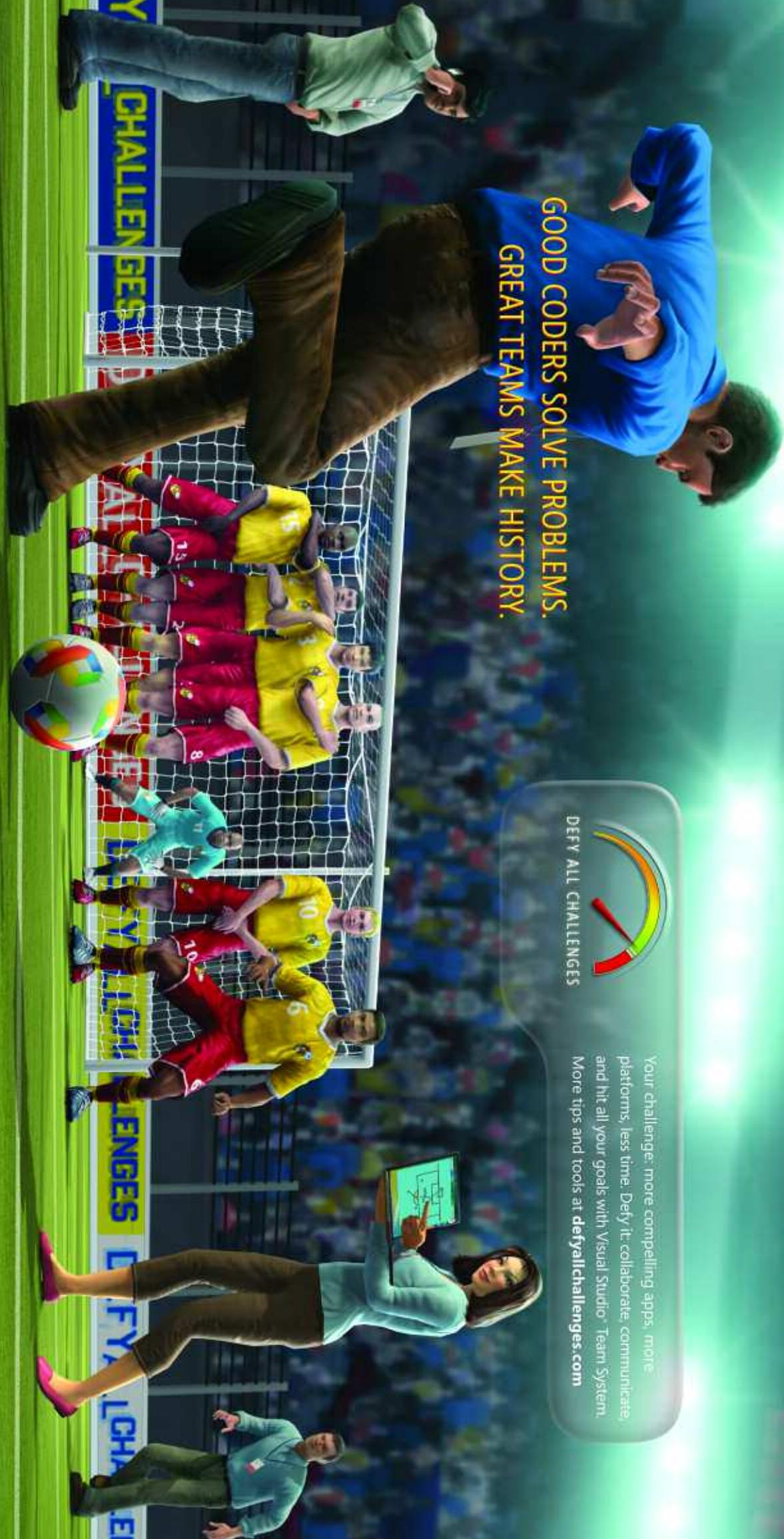
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Microsoft puts data server in cloud

Targeting developers, Redmond tips details on Web-based SSDS

BY DAVID WORTHINGTON

LAS VEGAS — Anyone who listened intently enough at MIX08 noticed that Microsoft's laser focus on Silverlight 2 was once obscured by clouds. Cloud computing, that is—and an upcoming Web-based data server that the company calls SQL Server Data Services (SSDS).

SSDS may have been the sleeper announcement of the show, and for now, it's a working part of the company's cloud computing initiative. Microsoft describes SSDS as an on-demand data storage and query processing utility service, which is hosted in the company's data centers. The company offers BizTalk Services and file storage as cloud services.

The advantage, of course, is that one's data is backed up and made geo-redundant, replicated to several locations around the world. Microsoft will provide a Service Level Agreement—with latency figured in—for customers when SSDS becomes generally available.

But it appears that won't be for a while, and a vague commitment to "next year" means data managers will spend several quarters with their noses pressed against the candy store

'The SQL Server data model is for more experienced DBAs. There are classes of applications that people want to build without allocating resources to support a data infrastructure. [SSDS] is not too dissimilar from the [Salesforce.com] model.'

—Bola Rotibi, Ovum analyst



window. A beta test of the service went live March 5 at the start of MIX08 and is being provided to a select and undisclosed group of testers. The final version may ship in the second half of 2009, according to Tudor Toma, a group program manager in SQL Server group.

The scope of what SSDS can do today is limited, the company said: One can add, delete or modify data and run basic queries against it. Toma said that Microsoft would update the production version of SSDS in two-month increments.

The first update to SSDS after it initially becomes generally available will add support for binary large objects, or BLOBs, and full text indexing.

David Mitchell Smith, a

Gartner fellow and vice president, compared SSDS with Amazon's SimpleDB, a Web service designed to run queries on structured data. Even still, SSDS may confound some, because in many ways the lack of details from Microsoft makes it easier to say what SSDS is not.

SSDS is not a hosted edition of SQL Server, even though its back-end database engine is a modified version of SQL Server 2005 running on Windows Server 2008. Nor is it "Astoria," a SQL-based data service for Web applications that uses the SQL Entity Data Model and exposes entities as URI-addressable resources. Thus, it identifies what information is available through the service.

Toma admitted that SSDS

does not even use the same data entity model as SQL Server. He explained that the SSDS entity model is a container for data that adds another layer of abstraction, making it easier for developers to add attributes to data as needed. The system automatically indexes, queries and stores data accordingly, instead of following a rigid schema.

Microsoft's first target with SSDS will be Web application developers, according to Toma. Developers must use LINQ, a component of the .NET Framework, to get at their data; no knowledge of traditional SQL is required. It does, however, require an understanding of how REST and SOAP interfaces connect to services. In

general, messages are formatted in XML and endpoints are secured by SSL.

TAPPING .NET DEVELOPERS

Bola Rotibi, an analyst with Ovum, called what Microsoft is providing in SSDS a cloud computing solution for data storage to leverage the existing skill sets of .NET developers.

She added, "The SQL Server data model is for more experienced DBAs. There are classes of applications that people want to build without allocating resources to support a data infrastructure. [SSDS] is not too dissimilar from the [Salesforce.com] model."

Rotibi noted that Microsoft appeared to be focusing on simplicity by providing an off-premises experience without being too prescriptive about how people should build storage in fracture.

For the most part, Microsoft remained mum about its intentions for cloud-based Web services, but chief software architect Ray Ozzie hinted, during his MIX08 keynote, that the company would reveal more at the next Microsoft Professional Developers Conference in October. ■

JavaOne agenda: NetBeans tune-up, MySQL, review of year

BY ROBERT MULLINS

When 15,000 fans of Java gather at the Moscone Center in San Francisco in early May, Sun Microsystems will find out how well its recent moves to grow the Java business have paid off.

JavaOne 2008, which runs from May 6 through May 9, marks a year since Sun released the Open Java Development Kit at JavaOne 2007, along with the Java source code under the GPLv2 license, with other code released under Apache and LGPL licenses. Sun will learn whether the OpenJDK release was, according to one analyst, "maybe too little, too late" to keep developers from adopting other frameworks.

Also, NetBeans 6.1, currently in beta, is scheduled for release just before JavaOne opens. It's expected by the company to address performance problems that Sun found in the 6.0 version

of the IDE released last December. Besides the hoped-for performance boost, 6.1 adds a JavaScript editor, support for the non-Sun WebSphere application server and IBM Rational's ClearCase versioning system, said Sun Technology Evangelist Brian Leonard.

Sun will be touting the benefits of its billion-dollar acquisition of the open-source MySQL database, which Sun CEO Jonathan Schwartz called "the most important acquisition in Sun's history ... and in the modern software industry."

Although the MySQL acquisition furthers Sun's open-source strategy, other aspects of that strategy have fallen flat. Developers had been waiting eight years for Sun to release the Java code as open source. A delay that meant many of them "moved on ... and found another way to get their needs met,"

said Joe Niski, an analyst with Burton Group.

Sun needed to take its time in open-sourcing Java because of intellectual property concerns, Niski explained, but developers who had run out of patience turned to other open-source frameworks, such as Apache Struts, Spring and Hibernate for writing Java applications. The modular design and advanced language features of Java 6 are welcome improvements upon previous versions, but it has been a long time coming.

Although endorsing Sun's open-source strategy, reaction to it from Burton's enterprise clients and developers has been lukewarm, Niski noted. "I don't know if it's too little, too late or it's just not high on industry radar in general," he added.

Improvements to the NetBeans IDE may prove a boon

to Sun, as version 6.1 helps to close the gap with IDEs such as Eclipse, said Michael Coté, an analyst with RedMonk.

With NetBeans support for dynamic scripting languages such as Ruby and Python, "It looks like you have a pretty even match between the NetBeans IDE and the Eclipse IDE," Coté said.

"They both look equally appealing to me personally."

But version 6.1 will improve

the IDE's performance, it being a sore spot with version 6.0, particularly for developers who juggle many plates, said Sun's Leonard.

Situations where developers were loading NetBeans 6.0 with multiple projects at startup were a problem, he said. With five or six projects—a common figure for some developers, Leonard noted—the sensation was too

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JAVA MILESTONES

Total Java SDK downloads: 8,750,000

Java SE JDK-only downloads: 6,300,000

Java SE JDK downloads/month: 720,000

GlassFish application server downloads: 2,500,000

NetBeans IDE/Java tool downloads: 3,820,000

Active NetBeans tool users/month: 450,000

Source: Sun

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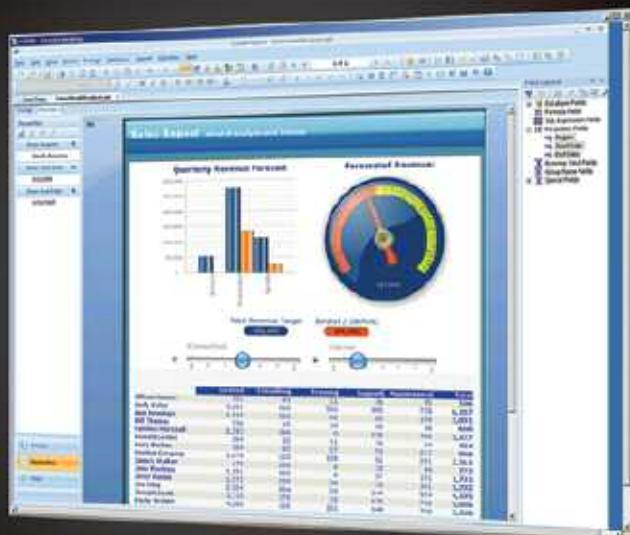
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Eclipse Foundation confronts next frontier: industry verticals

Software targets health care, financial services

BY ROBERT MULLINS

SANTA CLARA — Michael Taylor looked at the array of logos of big corporations and eager startups on the exhibit floor at EclipseCon 2008 and marveled at how far Eclipse has come in just a few years.

"They used to be a bunch of wild-and-crazy guys," said Taylor, CEO and president of software development tools maker Instantiations, speaking of the founders of the open-source Eclipse movement in 2001. Back then, "no enterprise would bet their company on open source. But now [Eclipse] is accepted in corporate America."

To be sure, IBM—arguably the antithesis of wild-and-crazy—was the spark behind Eclipse, but its then-contrary embrace of open source is now common. The Eclipse Foundation now also includes AMD, Cisco, HP, Oracle and many smaller companies among its 180 members—up from 50 in 2004.

Now, Eclipse is moving beyond the marquee technology enterprises to marquee enterprises period, by developing Eclipse-based software for key industry verticals.

The Open Health Tools (OHT) foundation, launched April 8, is furthest along of the

vertical projects. The global organization brings together health care standards organizations, government entities, IT companies and others to build Eclipse-based frameworks for interoperable healthcare systems. As a result, patients and

healthcare providers get access to reliable medical information.

The ultimate goal is to develop ubiquitous solutions, said Skip McGaughey, executive director of Open Health Tools (OHT).

He said that 4 billion people worldwide are under one form of medical care or another, and "a significant share of those people and the physicians and other caregivers are providing information to these people using this system." The potential benefits of having a worldwide network of medical providers to consult would be most easily realized through a set of common frameworks, he noted.

OHT will follow the present Eclipse extensible framework of strong governance rules, openness and transparency, will include an architecture council, a requirements council and share other similarities, he said. But it is adding a clinical council unique to its health care focus.

OHT members include the U.K.'s National Health Service,



Milinkovich: Industry-specific software will bring new business.

the U.S. Veterans Health Administration and Health Level 7, an industry standards organization. Members also come from Australia and Canada.

Once health care entities adopt Eclipse-based standards for information sharing, they can turn to Eclipse-based vendors, McGaughey continued.

"Why would a state government go out and re-create a reporting framework? Why not use Actuate's?" he asked, referring to its Eclipse-based business report-creation software.

The Eclipse Foundation is nurturing other industry-specific projects, said executive director Mike Milinkovich, including the Open Financial Markets Platform and the Open Systems Engineering Environment (OSEE) for life-cycle management of large systems engineering projects. A team of Boeing engineers is driving the OSEE project, by building the tools to design a new helicopter.

The industry verticals effort is the latest evolution of Eclipse, which began as a Java IDE, then moved into tools integration, application integration and rich client platforms, Milinkovich noted. Developing industry-specific software will expand the Eclipse ecosystem by creating business opportunities for vendors and bringing industry leaders in health care, financial services, aerospace and other industries into the foundation.

"You're going to see participation in Eclipse from companies that are not ISVs," he said. ■

Eclipse membership shows big growth in a few years



* As of EclipseCon in March

Source: Eclipse Foundation

Corporate membership in the Eclipse Foundation has grown in the past five years, but Eclipse hopes to sign up businesses outside of technology.

NEWS BRIEFS

COMPANIES



Relevance, which is focused on Ruby on Rails software development and training, has created a social networking site that leverages information from TradeKing, a broker dealer firm that incorporates social networking features into online trading. Relevance executives said that Ruby on Rails works with Java message queues through a Web service, which gives the site up-to-the-minute information about member trades.

NEW PRODUCTS

ASG Software, a provider of business service management, will offer a yet-to-be-named **data warehouse package** that can bring ASG's metadata management capabilities to Microsoft's SQL Server. The data warehouse, which the company said will be available in the third quarter, complements Microsoft's components by providing real-time health status and cross-platform project management for data warehouses . . . Developer Express has released the **ASPxTreeList**, a Tree-View-Grid control for Visual Studio. ASPxTreeList was built in C# and is optimized for ASP.NET 2. Company executives said ASPxTreeList is a multipurpose data visualization system that can display information in grid or tree view form. It uses on-demand loading of individual nodes and other data management technologies for ASP.NET . . . Open-source SOA specialist WSO2 has created the **WSO2 Web Services Framework for Spring 1.0**, which integrates the Apache Axis2/Java Web services engine into the Spring Framework. The WSO2 Web Services Framework for Spring 1.0 can work with the WS stack, including WS-Addressing and WS-Policy, and it enables Spring services to be exposed through an Inversion of Control container . . . ApexSQL, a provider of development products for the SQL database, has created the **ApexSQL Enforce** best-practices adherence and standards enforcement tool. Users can set custom SQL database rules using ApexSQL Enforce with C# and VB.NET, the company said. The software can enforce naming and coding conventions on SQL databases.

UPDATES

Zmanda, a backup and recovery software company, has released **Zmanda Recovery Manager Enterprise Edition 2.1** for MySQL Enterprise subscribers. The new version works with the Solaris 10 operating system and Linux, and plug-ins for Microsoft Windows VSS, NetApp Data ONTAP and Linux LVM . . . Codenomicon, an Oulu, Finland-based security and test company, has released **DEFENSICS 3.0**, a software suite that uses negative testing to expose flaws in products. The suite uses model-based fuzzing, which can identify weaknesses by feeding a program or system with malformed or unexpected data . . . Parasoft has added to its **SOAtest** product the ability to work with ISO 8583 messaging formats for exchanging financial transactions. The company said this lets SOAtest configure binary message formats through a graphical interface and helps teams manage a consistent process for electronic payment systems . . . TopQuadrant, a provider of semantic technology products, has added a **semantic e-mail importer** to TopBraid Composer and TopBraid Live. The company said this is the first technology that lets users develop semantic applications combining e-mail metadata with other data sources and answer business questions using that data . . . Hyperic, which makes open-source infrastructure management software, has created a plug-in framework in its **Hyperic HQ** flagship software. The plug-in framework helps users script and automate tasks to have better organization when managing infrastructure, the company said. HQ also now has a script console to help simplify tasks defined in the Groovy language.



PEOPLE

Steve McConnell has joined the board of advisers of on-demand project management provider LiquidPlanner. McConnell founded Construx Software, which focuses on software development best practices, and has written "Software Estimation: Demystifying the Black Art," "Code Complete" and "Rapid Development." ■

ComponentOne creates Visual Studio spell checker

BY DAVID WORTHINGTON

Former U.S. President Andrew Jackson once said, "It's a damn small mind that can think of only one way to spell a word." That line may have served Old

Hickory, but pithy sayings do not excuse a developer from introducing spelling errors into a project.

ComponentOne last month released its new spell-checking

extension for Microsoft Visual Studio, IntelliSpell. It adds a spell-checking capability to Visual Studio 2005 and 2008, allowing developers to check for mistakes in comments, HTML,

resources, string constants and XML documents.

The code analysis tools that ship with Visual Studio provide spell checking for variable names, but go no further.

Chris Menegay, a principal consultant for Notion Solutions, said that when he speaks to his customers about developer coding standards, he is regularly asked whether Microsoft plans to add spell-checking capabilities into Visual Studio. Menegay quipped that the interest was there because, "Most developers can't spell properly."

Billy Hollis, an author and Microsoft "regional director"—one of a number of volunteers recognized by Microsoft's Developer Platform evangelism group for technical expertise—suggested that developers should use a spell checker to improve the perceived quality of their work.

"The only way users can judge quality is [by] what they see," Hollis explained. "If they see misspelled words, many will assume they are seeing shoddy work."

IntelliSpell Community Edition is free, but limited to a U.S. English dictionary. A version with 16 dictionaries, including non-American English, French, German, Italian and Spanish, would be a paid upgrade. ■

TIBCO platform brings together Web 2.0, apps

BY DAVID WORTHINGTON

An enterprise analytics software maker has facilitated two-way interaction between its platform and Web 2.0 applications, creating what it calls an "interactive" enterprise mashup.

TIBCO Software released on April 1 the Spotfire 2.1 update to its business intelligence platform. The update introduces APIs that allow customers to mix components of the Spotfire application with Web applications as an enterprise mashup inside of a Web browser.

"The applications interact as if they were intended to work together," said Roger Oberg, vice president of product strategy for TIBCO Spotfire. He added that mashups might be tied into a business process management workflow.

Dan Vasset, vice president of business analytics at IDC, said that Spotfire's two-way connections were unique. ■



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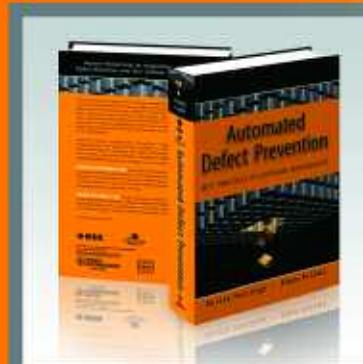
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- Integration for Visual Studio and Eclipse platforms available





Application Life-Cycle Management

Building the right team and fostering a culture of continuous improvement and collaboration is the foundation for success. You also need the right tools and processes in place for your team to do their best work. That's where Microsoft Visual Studio Team System 2008 can help.

Overcoming Application Development Challenges

Whether you're part of an application development team, or a business stakeholder who depends on IT for business-critical applications, you know first-hand some of the many challenges associated with application development. These challenges depend on the situation, but often include:

- Managing shifting business requirements throughout the project
- Communication gaps between project managers, developers and testers
- Adequately testing applications for quality and reliability
- Gaining visibility into project status to make trade-off decisions and to drive predictable project delivery
- Dealing with global development, regulatory and compliance challenges

These are not simple challenges to overcome; many are interrelated and involve multiple team members and stakeholders. By systematically improving capabilities across your team, you can achieve dramatic improvements in your project success rates, better mitigate risks and increase your overall impact to the business.

Visual Studio Team System can help your team overcome these challenges:

- Communicate and Collaborate
- Verifying Quality, Early and Often
- Manage Team Workflow
- Integrate Work Frequently
- Use Familiar Tools
- Make Real-Time Decisions
- Drive Predictability

Communicate and Collaborate

Most software development teams use a number of stand-alone tools to manage the application life cycle. Specifications and requirements are stored on file shares or SharePoint sites; tasks assigned to developers are managed using e-mail; bugs are tracked with spreadsheets; and source code resides in one or more version-control systems. With important information in so many different places, it's hard for team members to work together effectively, resulting in additional effort and the potential for miscommunication.



Integrated Team Server

Visual Studio Team System facilitates team-wide communication and collaboration by providing a unified repository for project data, along with the tools to define, enforce, and automate desired processes. At its heart is Visual Studio Team System 2008 Team Foundation Server, which supports version control, work item tracking, automated builds and quality checks, and more. Configurable process templates tie team activity together, with changes in status gathered automatically as part of everyday workflows. Automatic notifications keep team members informed of key events, such as a failed build. And with project information in one place and tied together, efforts are traceable back to initial requirements and stakeholders have real-time visibility into project status and quality.

Support for Many Disciplines

Team Foundation Server was designed to meet the needs of many members of the extended development team, not just software developers. Business analysts and architects can manage scenarios, requirements, and design documents; project managers and development leads can assign, track, and report on project status; database professionals can manage database schemas and deployment scripts; and testers can manage regression and load tests, determine test coverage, and keep a close eye on quality trends. The Visual Studio Team Explorer client provides team members with a single point of access to project artifacts and data, while a pre-built, customizable SharePoint portal extends the same information to remote team members and other project stakeholders.

By bringing project artifacts, data, and status together in one place, Visual Studio Team System enables more effective team communication and collaboration. Defined and consistently enacted processes, full traceability, and built-in status reporting help maximize individual productivity, at the same time helping to ensure that the efforts of each team member remain well defined and aligned with the team's overall priorities.

Verifying Quality, Early and Often

Verifying quality is often neglected during most phases of the development process. Instead, it is measured near the end of the process, when code is handed off to be tested. This approach often results in extra work and a slipping schedule as features thought to be complete are pushed back to developers for rework. Even if code passes initial QA tests, performance and scalability issues can remain undetected until software is deployed into production.



A Quality-Centric Tool Set

Microsoft Visual Studio Team System provides tools for verifying quality throughout the application life cycle, helping teams to deliver higher-quality software faster and with less rework. From tracking requirements during planning to performance and load testing of the completed application, Visual Studio Team System provides the tools needed to improve many aspects of software quality.

Focus on Quality throughout the Application Life Cycle

The focus on quality begins during the planning phase, before the first line of code is written, when work item tracking helps thoroughly map scenarios to requirements. As architects design a solution that meets those requirements, tools such as the Application Designer, Distributed System Designer, and Deployment Designer help ensure that the solution will deliver the necessary performance, scalability, and manageability.

During development, before code is checked in, static code-analysis tools help identify coding errors and potential security issues earlier, while performance profiling and hot-path analysis help avoid potential performance and scalability problems. Developers can easily create unit tests to validate application and database objects, using code coverage analysis tools to determine the completeness of those tests. Tools for examining code metrics can help gauge the complexity and maintainability of code.

QA engineers can begin writing test cases and load tests earlier, mapping them to work items and managing test activity with Visual Studio Team System. As requirements change, full traceability between work items helps them ensure that test coverage remains complete. Prior to production deployment, comprehensive load-testing tools help QA engineers validate the application's performance and scalability as a whole.

Visual Studio Team System enables development teams to improve quality throughout the development life cycle, not just near the end. Such an approach helps minimize the rework-and-retest "churn" that typically occurs near the end of each development iteration, during which tradeoffs on quality versus schedules must often be made—in turn helping to increase software quality, reduce time-to-market, and decrease overall development costs.



Manage Team Workflow

Development teams deal with many different types of project artifacts, such as scenarios, use cases, requirements, developer tasks, change requests, test passes, and bugs. However, most teams lack a good way to manage those project artifacts, define the relationships between them, and trace those relationships and the effects of status changes throughout the application life cycle. Team Foundation Server manages these project artifacts as work items so teams can better gauge progress toward goals and ensure that resources are not being wasted on unnecessary work.

Detailed Work Plans

Work item tracking in Microsoft Visual Studio Team System provides an efficient way to manage and monitor the status of project-related activity. Team projects have detailed work plans, with initial work items generated automatically based on process templates. Each work item typically has a title; a description; a team member to whom the work is assigned; and a current state, such as proposed, active, resolved, or closed. Work items can also have links to other work items, attachments, and custom fields.

Work Item Visibility and Traceability

With relationships between work items clearly defined and changes in the status of work items collected automatically, a team's progress-to-goals remains visible, even as work is handed off among team members. For example, a business analyst may break down scenarios into requirements, which a development lead divides into tasks for developers. As developers finish the tasks, source code-control policies require them to associate their checked-in code with work items. Because those change sets are associated with each build, as a new build passes QA tests, stakeholders can see that, for example, 60 percent of the work required to meet all project requirements is now complete.

Work item tracking provides an efficient way to manage the efforts of team members, with full traceability back to initial project goals and real-time visibility into team progress. Team members will know how their assigned tasks are related to project goals as a whole, and project managers and leads can ensure that no unnecessary work is assigned. And because all changes to work items are logged and fully auditable, those same capabilities can help address complex compliance and regulatory requirements.

with Microsoft Visual Studio Team System 2008

Integrate Work Frequently

Another quality-related area where most teams see room for improvement is source code management and version control. One common issue is the integration of individual developer efforts into the official code base, which can result in the all-too-frequent “broken build”—and force QA resources to sit idle until the issues have been resolved and a new build is ready to test.



Visual Studio Team System provides the information needed to make informed, real-time decisions on iteration planning, test coverage, bug trends, project schedules, resource allocation, and more—in turn helping development teams to deliver on time and on budget, and to ensure that projects meet all identified requirements. Project managers and development leads can be ready for team meetings in minutes instead of hours, saving everyone the effort of having to manually communicate status, and can answer questions posed by external stakeholders and upper management on the fly.

Comprehensive Version Control

Microsoft Visual Studio Team System helps solve these pains by providing a comprehensive, flexible, version-control system. This functionality is not a mere upgrade to Microsoft Visual SourceSafe version-control system; rather, the version-control capabilities of Visual Studio Team System Team Foundation Server were designed from the ground up to deliver the same scalability, performance, and reliability of its underlying data store, which is based on Microsoft SQL Server 2005 database software. Built-in tools aid in the migration of source code and change history from Visual SourceSafe.

Some key version-control features in Visual Studio Team System Team Foundation Server include atomic check-ins, which help maintain the integrity of source-code files, and policies that require developers to perform unit tests or static code analysis prior to checking in code and to associate all checked-in code with work items. Support for “shelving” code enables developers to store work in progress on the server without checking it in, and a new “get latest on edit” feature checks for new code on the server when a developer starts to edit a local copy—just in case someone else has made changes since the code was checked out.

Powerful Build Server

Version control in Visual Studio Team System is complemented by its Team Build features, including support for continuous integration builds every time someone checks in code. Unit tests and build verification tests can be run as part of the process, and if the build or tests fail, designated stakeholders are automatically notified. Flexible build definitions also help reduce the time spent managing scripts for “official” builds, providing the ability to easily automate compilation, unit tests, static code analysis, virtual server configuration, Web site or Web services configuration, application installation, database deployment, test-data generation, and load tests.

The version control and Team Build features in Visual Studio Team System help teams ensure quality by enabling them to easily and frequently integrate the work of individual team members—and validate that the combined efforts work as expected.

Use Familiar Tools

Many development teams want an integrated solution for application life cycle management but also want to avoid the lost productivity associated with having to learn new tools.



Make Use of Existing Tools and Skill Sets

Microsoft Visual Studio Team System facilitates adoption by enabling team members to use tools that are already familiar to them. Project managers can design an itemized list of work items, assign those work items to developers, and track their completion using Microsoft Office Project Professional, or they can use Microsoft Office Excel spreadsheet software to make global changes and quickly reassess priorities. Architects, software developers, development leads, database professionals, and testers can continue to use the Visual Studio integrated development environment, including Visual Studio 2008 Professional Edition or any of the Visual Studio Team System Editions. Remote team members and business stakeholders can use Visual Studio Team System Web Access to take advantage of many Visual Studio Team System features.

Visual Studio Team System helps reduce “soft” adoption costs by integrating with the desktop applications that people already know and use. Instead of having to learn new tools, team members can continue to use the tools that help them be the most productive.

Make Real-time Decisions

Regardless of the maturity of their processes, many development teams lack full visibility into the application life cycle—and thus they are unable to easily answer questions such as, “Does the application meet all requirements?” and, “Are we on schedule?”

Business Intelligence for Development Teams

Powered by an integrated Microsoft SQL Server 2005-based data warehouse, the business intelligence features in Microsoft Visual Studio Team System provide the information needed to make informed, real-time decisions with just a click on a link. And because SQL Server Reporting Services is the engine underlying Visual Studio Team System business intelligence, teams can just as easily customize existing reports as they can create new ones.

One highly useful out-of-the-box report is Remaining Work, which provides a comprehensive view of all remaining work items, enabling development leads and project managers to easily see progress, identify bottlenecks, and, if necessary, reallocate resources. Another useful prebuilt report is Quality Indicators, which provides a combined view of unit test success rates, code coverage by unit tests, code churn, and active bugs—all tracked over time.

Drive Predictability

Most development teams recognize the value of consistent processes. However, they may not have such processes, know what they need, or know how to get started. Teams that have established processes may find that the processes are not consistently followed, or that adherence requires significant manual effort. Few teams have matured to the point that they can consistently and effortlessly follow established processes and, even if they have, must still deal with issues such as reorganization, new regulatory or compliance requirements, and bringing new team members up to speed.



Defined and Consistently Followed Processes

Visual Studio Team System includes integrated process templates to help teams deliver predictable results, continuously improve and adapt, and more effectively collaborate and communicate. The process templates are fully integrated with other Visual Studio Team System features, such as work item tracking and source code control, providing both the ability to define desired processes and the means for team members to productively work within those processes.

Visual Studio Team System includes two out-of-the-box process templates: Microsoft Solutions Framework for Agile Software Development and Microsoft Solutions Framework for CMMI (Capability Maturity Model Integration) Process Improvement. Each provides a set of predefined work items, HTML-based process guidance, a SharePoint portal, and a set of predefined reports. Templates for additional methodologies such as Scrum are available in the Visual Studio Team System Developer Center on MSDN, the Microsoft Developer Network.

Configurable and Adaptable Templates

Although prebuilt process templates can provide a strong head start, they’re not hard-coded. Teams can tailor them to support their own processes or can define new templates from scratch. Either way, the Process Template Editor makes it easy to create new types of work items, specify content for a work item type, define which work items are automatically generated for a new project, and define the relationships between work item types. Teams also can customize process guidance, SharePoint portal layout, and reports.

Visual Studio Team System can help development teams define, adopt, and enforce consistent processes. In turn, that improved predictability can help increase project velocity, accelerate development cycles, and facilitate more accurate estimation of those cycles, thereby helping teams to deliver results better, faster, and more consistently.

Visual Studio and the Microsoft Application Platform

The Microsoft Application Platform is a portfolio of technology capabilities, core products, and best practice guidance focused on helping IT and development departments’ partner with the business to maximize opportunity.

As one of the core products of the Microsoft Application Platform, Visual Studio can help you drive the right business efficiencies, customer connections, and value-added services by providing a single, fully integrated development environment for most types of development, including Microsoft Windows, Microsoft Office, Web, and mobile applications. Use Visual Studio development solutions to give your development team powerful ways to:

- Increase productivity and quality through integrated and familiar tools.
- Deploy, secure, and support your critical Web applications and infrastructure.
- Reduce costs through better visibility of your development process.
- Provide better predictability and planning through integrated process and methodology support.

Ready to Share the Vision

If you are ready to Share the Vision of Visual Studio Team System 2008 contact your local Microsoft representative or Microsoft Partner and learn more at <http://www.microsoft.com/teamsystem>.



WPF gets extended for custom layouts

IdentityMine's Blendables products make layout-to-layout animations possible

BY DAVID WORTHINGTON

Microsoft designed the Windows Presentation Foundation to be versatile: The layout system is not restricted to its

default panel controls, and developers can create custom layouts. Now, WPF's underlying architecture is being extended, as IdentityMine tries to reduce

the complexity of designing unconventional layouts by providing new lower-level infrastructure code for developers.

IdentityMine made beta ver-

sions of its Blendables Layout Mix and Blendables 3D Mix products generally available last month. The duo provides a set of custom elements, or panels, for

WPF application and content layout and enables transition animations between layouts.

Panels are a category of elements used in WPF to arrange a collection of child elements (known as UIElements) into their proper sizes and positions for layout. Currently, WPF ships with six of those element panels: CanvasPanel, GridPanel, DockPanel, StackPanel, VirtualizingStackPanel and WrapPanel.

Blendables Layout Mix includes an additional seven panels that add layout-to-layout animations for WPF based on physics-driven animation and Penner animations. Kurt Brockett, director of product management at IdentityMine, said that those panels "add life" to applications.

Layout Mix also includes three reworked versions of WPF's default panels—CanvasPanel, StackPanel and WrapPanel—that employ layout-to-layout animation.

Blendables 3D provides a more advanced framework for 3D user interface development, which IdentityMine calls the "SwitchPanel Core."

The beta versions of Blendables are downloadable for evaluation from the IdentityMine Web site, www.blendables.com. IdentityMine expects to ship the final versions in the second half of the year. ■

THE EQUATIONS BEHIND THE ANIMATIONS

Penner animations use a series of "easing equations" developed by author and programmer Robert Penner for ActionScript-based animation. Now employed by Adobe Systems as an engineer, Penner released them in 2001 under the BSD license.

IdentityMine took Penner's mathematical equations and represented them in C# code, which WPF uses to make calculations, according to Kurt Brockett, director of product management at IdentityMine. "Customers can set physics on layout in an easier way by specifying name of equations, as opposed to writing it themselves and porting it into their projects," he said. ■

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VMware open-source toolkit automates virtualization tasks

BY ROBERT MULLINS

VMware has released a beta version of the VMware Infrastructure Toolkit, which lets administrators using virtualization in a Windows environment better automate many common tasks.

The toolkit is based on Microsoft's Windows PowerShell scripting language, which integrates with the .NET Framework. It offers prewritten modules of code, or what Microsoft calls "commandlets," that can be assembled to perform a particular function. VMware offers about 100 commandlets in its kit, designed to automate virtualization tasks that would otherwise have to be done manually, said Bogomil Balkansky, senior director of product marketing at VMware.

"For the most common tasks, such as creating a virtual

SURGENT EXTENDS THIRD-PARTY TESTING SUPPORT

BY DAVID WORTHINGTON

With the latest release of its virtual lab management software, Surgent has expanded its platform's ability to work with third-party application life-cycle management tools and prevailing virtualization infrastructures.

Surgent's Lab Management Platform 5.4 is designed to eliminate manual provisioning by making virtual software environments available through a managed service. Those environments can be configured to use "bare metal" hardware in a flexible, virtualized arrangement.

The new version adds a Web services API for integration with ALM tools and has an updated add-on for HP Quality Center that improves support for complex network configurations and integrates with Quality Center's testing tool hosts.

Erik Josowitz, vice president of product strategy at Surgent, said that the integration does not lead to any significant change to the Quality Center user experience.

Surgent follows Quality Center's rules for defect discovery by taking configuration snapshots and sending a unique URL back to developers to reconstitute a particular snapshot, which Josowitz said could also be used for compliance. ■

machine or powering a virtual machine ... we provide the ready-made scripts," Balkansky said. "Then [the administrator] can easily string together the commandlets with bits of additional scripting to create more

complex and powerful scripts of their own."

Among the tasks more easily automated is the taking of snapshots to determine system performance at a specific time. If a snapshot reveals a code defect,

that snapshot can be sent to a software engineer for repair, Balkansky said. The automation comes in when an administrator can snapshot hundreds of virtual machines at once.

The beta VMware Infra-

structure Toolkit can be downloaded free on VMware's Web site. Once it is released, the kit will be offered as an additional feature with the VMware management software suite, Balkansky said. ■



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Component manufacturers take a shine to Silverlight 2

Infragistics to ship controls for line-of-business apps

BY DAVID WORTHINGTON

Microsoft's Silverlight is moving beyond an association with mere eye candy to take up a new role with component makers, such as Infragistics, which envisions using it for line-of-business applications.

Infragistics last month unveiled NetAdvantage for Silverlight, a suite of prototype components for Silverlight 2. The first Silverlight beta was released in early March, at MIX08 in Las Vegas.

NetAdvantage for Silverlight will include charts, grids and navigation controls for Silverlight. Jason Beres, director of product management at Infragistics, said it would initially ship 10 to 15 data visualization controls when Silverlight 2 goes gold, after August.

The proof is often in the results. Beres noted that Infragistics has built a sales dashboard

called faceOut using Silverlight controls as a proof-of-concept for its customers to tire-kick the platform and its capabilities. The faceOut prototype melds enterprise sales data with feeds from Windows Live Contacts and Windows Live Maps services.

The advantage of using Silverlight for line-of-business applications, Beres said, is its cross-platform reach and productivity gains for developers. Microsoft expects to offer Silverlight runtimes for most major browsers and operating systems, including Linux—via Mono Moonlight, which is not yet in a packaged state—and Mac OS X, in the form of a plug-in for both Firefox and Safari that Microsoft released last September.

More specifically, Beres noted that Microsoft's Expression Blend design editor streamlines interface styling, shortening Silverlight application develop-

ment, and that Silverlight applications are easier to program compared with coding with ASP.NET AJAX. Silverlight's "a richer environment, and you do not need to worry about JavaScript. I am hearing that once you go Silverlight, you really don't go back" to ASP.NET AJAX, said Beres.

Silverlight 2 incorporates a slimmed-down version of the .NET Framework's Common Language Runtime (CLR), enabling developers to write applications with CLR languages. It will also ship with its own suite of interface controls.

THE BUNDLING ISSUE

Microsoft's decision to bundle controls with Silverlight put Infragistics and Beres in a tough spot. "Microsoft is our best friend and biggest competitor. They drive us to be more innovative and add controls, but they



Infragistics created a proof-of-concept app, faceOut, to push Silverlight.

had to respond [as well] to customers" that demanded bundled controls. Yet, he noted, there is room for both to thrive: "We are doing things [with rich controls that] they are not."

Going forward, said Beres, Infragistics will start writing controls with a common code base for both Silverlight and Windows Presentation Foundation (WPF). Silverlight will be the starting point, moving up toward WPF, which had a broader set of capabilities, he explained.

He added that .NET Framework 3.5 has some useful features that Silverlight lacks, such as UI virtualization and event triggers. Silverlight's lack of UI virtualization made it more difficult for Infragistics to implement smooth scrolling.

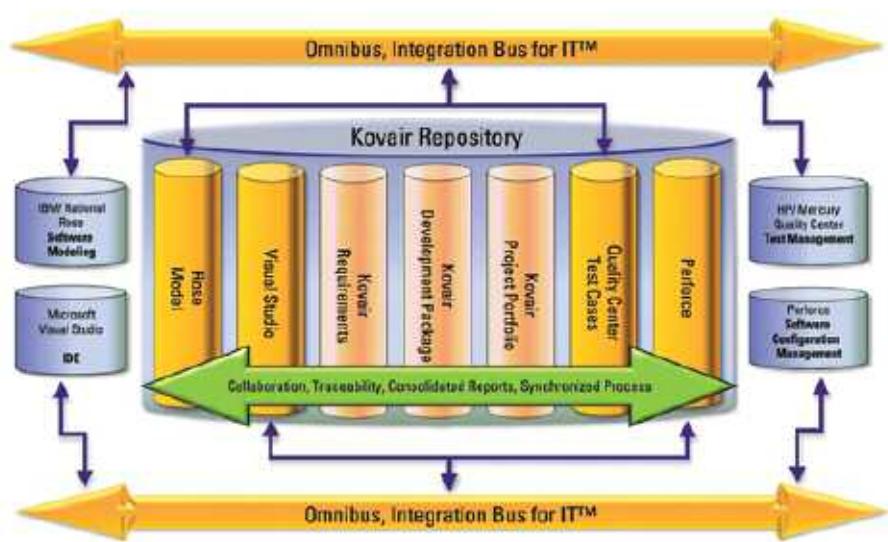
However, he said, Microsoft "needed to ship a product. [Event triggers] probably would have been a heavy feature to add to the runtime." He noted that this release is only a first go at implementing the CLR. ■

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JBuilder upgrade lets veteran developers help newbies

BY ROBERT MULLINS

The newest upgrade to CodeGear's JBuilder IDE recognizes that some of the best tips for software development come from people who have experience with the code.

JBuilder 2008, released April 1, offers what the company calls Application Factories, which helps junior developers unravel the complexity of framework choices, open source, internal code, and other aspects of the process to create applications. Senior developers could use the feature to communicate intent, share instructions and direct junior developers to resources.

Application Factories is available only in the premium version of three JBuilder 2008 offerings, JBuilder 2008 Enterprise, with a list price of US\$1,499, or \$750 as an upgrade. Included are modules of reusable code along with background about their purpose and design that Michael Swindell, CodeGear's vice president of products, calls "code archaeology."

He said, "As developers are building an application, things like tags and metadata and scripts are all being built into the application and can easily be handed off to other developers."

The Factories feature addresses the growing complexity of writing Java-based code, some of which is open source, as well as the inevitable body shuffle of turnover in Java programmers or transfers of experienced programmers to other projects, he explained.

Application Factories tools are "source code- and framework-agnostic," Swindell continued, such as a module for building e-commerce applications that focuses only on the code and tools needed to build an online store.

"It allows the developer to focus on the applications rather than having to focus on the frameworks," said Jeff Anders, CodeGear's senior director of JBuilder product marketing.

Although other IDEs offer code in modular form to execute repeated tasks, Application Factories improves software development by passing along shared knowledge and best practices, said Vishwanath Venugopalan, an enterprise software analyst at The 451 Group.

"Oftentimes, this knowledge is transmitted literally from person to person," he explained, but CodeGear is trying to "capture such interactions directly within the tool."

JBuilder 2008 also adds Instantiations' Swing Designer, a visual layout tool for creating graphical user interfaces, based on the Java Swing toolkit.

CodeGear offers the entry-

level JBuilder 2008 Turbo for free while JBuilder 2008 Professional, with expanded support for Java EE 5 and Web services plus Instantiations Swing Designer, lists for \$499, or \$250

as an upgrade.

JBuilder 2008 succeeds CodeGear's 2007 version, introduced in December 2006, which was the first JBuilder based on the open-source Eclipse IDE. ■

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Codice ALM tool enters U.S. market

BY ROBERT MULLINS

Codice Software entered the U.S. market last month with an application life-cycle management tool designed for parallel development environments.

Codice, based in Spain, said

its Plastic SCM 2.0 tool makes it possible for developers to work on parallel tracks in software development, performing such tasks as configuration management and version control, without conflicting with

one another's work.

Features include a distributed programming system that lets developers work in separate locations on different branches, or the same branch, of a software project and synchronize

those changes as they proceed.

Plastic SCM also performs code testing without the need for a separate testing program such as Visual Studio's SourceSafe, CVS or Subversion. However, it can integrate branches

and related data based on those programs.

Plastic SCM integrates with the Eclipse IDE as well as Microsoft's Visual Studio and other IDEs, according to Codice. Although Plastic SCM installs the open-source Firebird database as its back-end repository, it also permits larger teams to use MySQL or SQL Server.

Codice didn't provide license pricing for its Professional Edition and Standard Edition versions but said that each developer would need a separate license to run Plastic SCM. ■

Tools bring agile collaboration to Mylyn users

BY ROBERT MULLINS

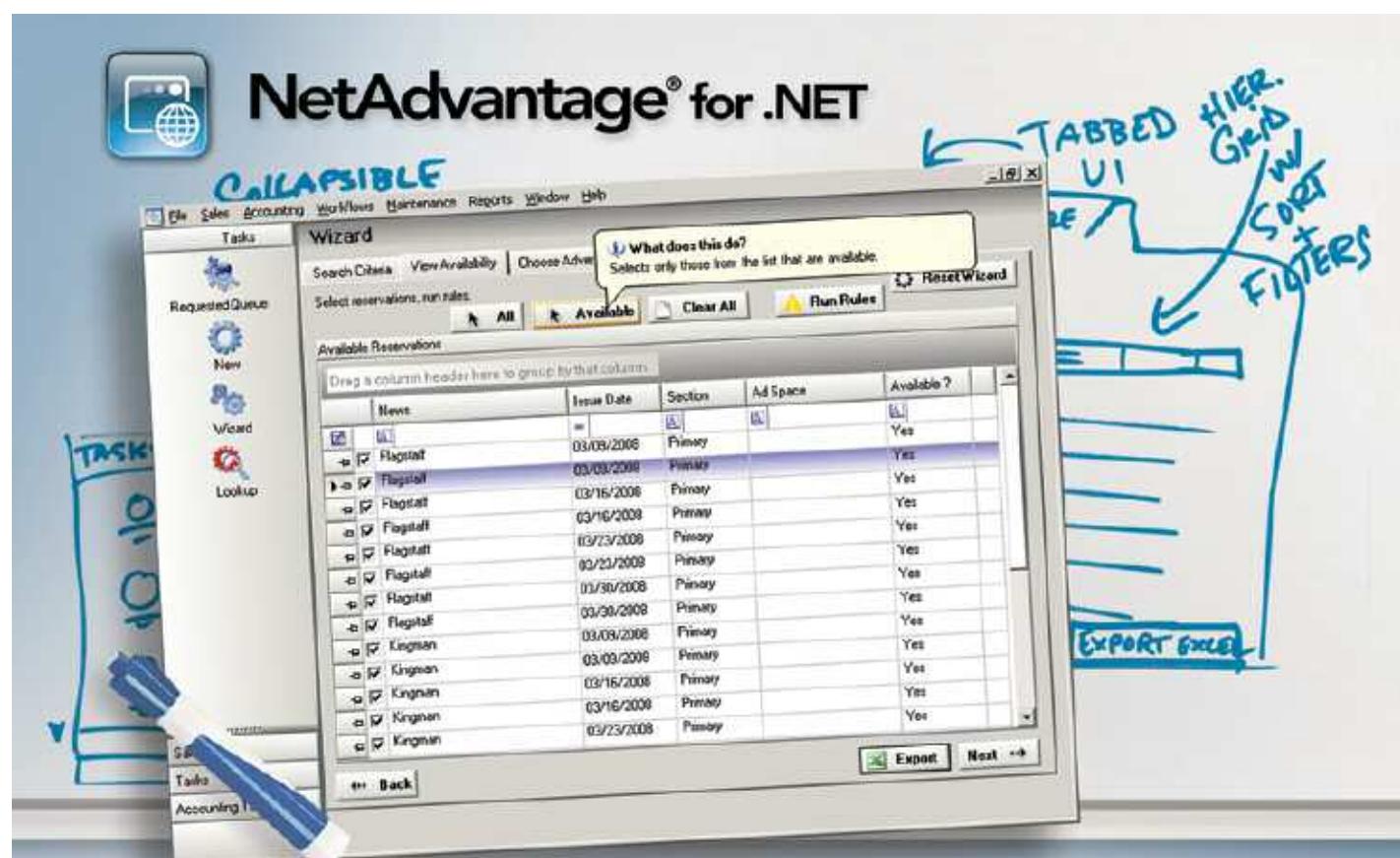
Two makers of agile software development tools have jointly released integrated products designed to deliver more pertinent information to the desktops of developers working in the Mylyn open-source project.

Rally Software Development and Tasktop Technologies last month introduced products and integrations that the companies hope will reduce the useless information developers must sift through to find what they need.

Often when working on an agile project, some IDEs overload developers with tens of thousands of source code artifacts, forcing them to spend more time searching and navigating than actually programming. The Mylyn project aims to deliver information to developers pertinent to the task at hand, Rally and Tasktop said in a joint news release.

The new Rally Connector for Eclipse enables developers and testers to see code artifacts in the context of their source code from within the Eclipse IDE and share that context with other Rally users. It includes sharing Rally user stories "and even the e-mails that they are using to collaborate within the team," said Zach Nies, vice president of product development for Rally.

The Tasktop Task-Focused Desktop product integrates with the Rally product, associating Rally user stories, tasks and defects with activities such as e-mail and Web browsing. ■



Real Solutions for Real Challenges.

The Challenge

Data Resolution, a provider of Enterprise Business Solutions for small to mid-sized businesses, was building Microsoft® Windows Forms business applications but found the included platform tools difficult to use and time consuming. "We really needed something that was a plug and play solution and that was easy to code," said Jason Mindte, Data Resolution's Principal and Technical Manager. Data Resolution chose to fill their component toolbox with Infragistics NetAdvantage for Windows Forms.

"When we first used NetAdvantage, it was so easy. The coding is straightforward and easy to implement," said Mindte. "I especially love the WinGrid™—it has such flexibility." Mindte also appreciates the NetAdvantage subscription model, having utilized every Windows Forms tool NetAdvantage offers. "What used to take 4 hours now takes us minutes," said Mindte. "We can recover the cost of the product within a month." Saving ten to fifty percent of their time drives down the cost and makes new bids more competitive.

Data Resolution has experienced a significant return on their investment, also utilizing NetAdvantage AppStyler™ for each project. But the real bottom line for Data Resolution is how it helps them maintain a high level of service for their customers. "The Infragistics tools do everything our customers want," said Mindte. "When our customers see all the feature-rich code we built for them using NetAdvantage, they love us."



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NetBeans ups JavaScript support, MySQL integration

Upgrade makes it easier to write for all major browsers, Sun says

BY ROBERT MULLINS

Sun Microsystems has refreshed its NetBeans IDE with added JavaScript support and tighter integration with MySQL, which Sun acquired in February.

A beta version of NetBeans 6.1 is now available as a free download.

The new JavaScript support is based on the dynamic language support that Sun already offers for Ruby, including code completion, quick fixes, semantic checks and refactoring, semantic highlighting and type analysis, the company said.

Version 6.1 also adds browser compatibility that makes it easier to write JavaScript code to run in Mozilla Firefox, Opera, Safari or Windows Internet Explorer.

The NetBeans Database Explorer in 6.1 makes it easier to create, launch and view MySQL databases, Sun said. The company paid US\$1 billion to acquire the Swedish MySQL AB, which

IBM ROLLS LOTUS SYMPHONY 4.0 BETA FOR LINUX

BY ROBERT MULLINS

IBM last month released a beta version of its Lotus Symphony 4.0 software for Linux desktops through the Linspire-operated free download site cnr.com.

Lotus Symphony, based on OpenOffice.org code, is a set of applications for creating, editing and sharing documents, spreadsheets and presentations. It also enables users to import Microsoft Office or Adobe Portable Document Format files into their documents, as well as those written in the Lotus SmartSuite format.

Linspire's cnr.com is a free one-click download site for software delivery that supports Linux distributions such as Linspire 6.0, Freespire 2.0, and Ubuntu 7.04 and 7.10.

Users are invited to download the beta "and help provide valuable feedback while the product gets closer to its official launch," said Larry Kettler, Linspire president and CEO, in a prepared statement. The announcement gave no specific time for the general availability of version 4.0. ■

distributed the open-source database management system.

Other new NetBeans features that the company is tout-

ing include faster startup and code completion; enhanced support for Ruby and JRuby, including a new Ruby platform

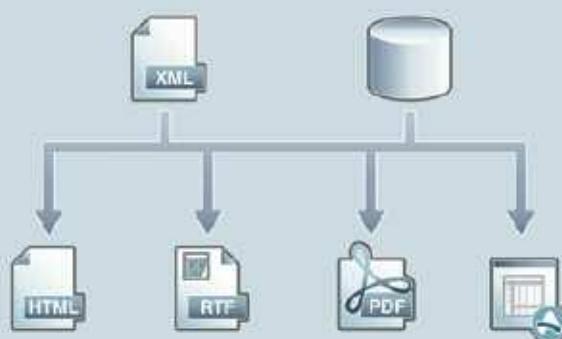
manager; and beta support for IBM's Rational ClearCase version control system.

During the past two years,

NetBeans has been downloaded 3.2 million times, said Jim Parkinson, vice president of tools and services at Sun. ■



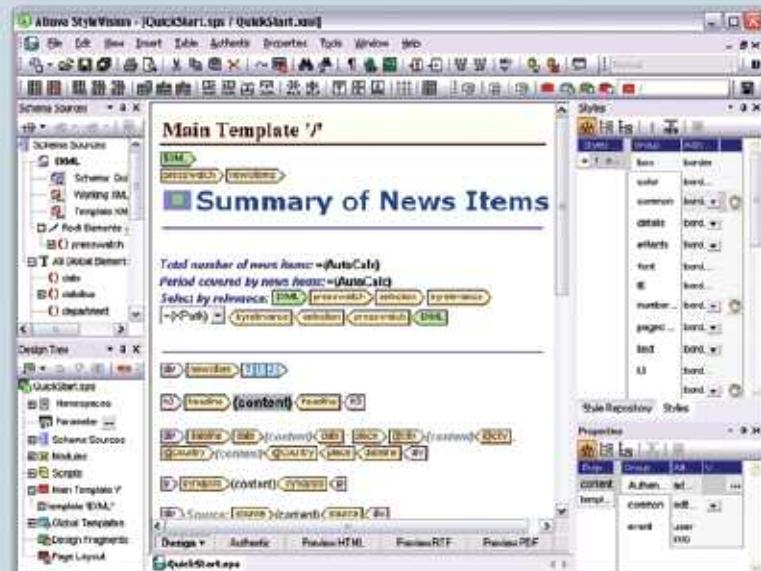
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Intel, Microsoft plumb parallel programming

BY DAVID WORTHINGTON

The multicore processor has dramatically increased computing power, and prospects are high that it will continue to do so for the foreseeable future.

Microsoft and Intel are jointly investing in parallel programming research to ensure that software can keep pace.

The duo announced a partnership last month to create two

research centers devoted to parallel programming, one at the University of California, Berkeley, and the other at the University of Illinois at Urbana-Champaign. The companies have

committed US\$20 million to the centers over the next five years.

The schools are contributing as well. Illinois has budgeted an additional \$7 million, and UC Berkeley has applied for \$7 mil-

lion in funds from a state-sponsored matching program.

The objective is to advance parallel programming applications, architecture and OS software to create advanced software for digital media, mobile devices, statistical analyses and search, and visual interfaces.

But one industry watcher wondered what will come out of the deal. James Staten, a principal analyst with Forrester Research, noted in an e-mail that he "wouldn't necessarily read anything into this particular investment by [Microsoft] and Intel, other than they saw direct joint value in this particular area of study."

"Let's remember," he added, "that most university research projects take a long time to deliver value that can be productized and profited from, and a lot don't deliver this value. Any advantage these two players may gain over their competitors would be pure speculation at this stage."

Yet, the companies remain optimistic. "Intel has already shown an 80-core research processor, and we're quickly moving the computing industry to a many-core world," Andrew Chien, vice president of Intel's Corporate Technology Group and director of Intel Research, said in a prepared statement. "Working with Microsoft and these two prestigious universities will help catalyze the long-term breakthroughs needed to enable dramatic new applications for the mainstream user."

During a call with analysts and the press, Tony Hey, corporate vice president of external research at Microsoft Research, said that the partnership would supplement efforts Microsoft has made to create the Microsoft Robotics Studio development kit, numerical libraries for parallel computing, parallel programming languages, thread-based performance tools and its transaction memory research.

In December, Microsoft released a Community Technology Preview of the Parallel Extensions to .NET Framework, also known as ParallelFX. ParallelFX provides a managed programming model for parallel programming on .NET.

Microsoft Research began another parallel programming research project called MS-ManiC (Memory Systems for Many Cores) in 2007. It is designing memory system architectures for future multicore processors, Microsoft said. ■

Intellectuals solve problems.
Geniuses prevent them.

— Albert Einstein

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ILOG close to solving UI interoperability problems

BY ROBERT MULLINS

SANTA CLARA — ILOG said last month at EclipseCon that it is getting closer to a solution to longstanding interoperability problems between two toolkits for writing user interfaces.

ILOG is working on the Albireo Project with another software company, SAS Interactive, to better bridge the gap between UIs written with the abstract widget toolkit (AWT) and those written with the synchronous widget toolkit (SWT), said Ed Kiraly, ILOG's visualization product marketing manager.

The toolkits have different origins, Kiraly explained. Sun Microsystems developed AWT and the related Swing toolkit. IBM, on the other hand, developed SWT as part of the Eclipse IDE.

Errors occur when a UI created with Eclipse also includes an insert written in Java, said

Gordon Hirsch, a principal systems developer for Java at SAS, in his EclipseCon presentation.

Although some interoperability issues have been addressed in a "low-level" bridge between

SWT and AWT, Gordon said, the Albireo Project hopes to create a better bridge.

The open-source Eclipse community is ideally suited to fixing such problems, said

Kiraly. "Here is an opportunity where open source can come and rescue this."

ILOG also announced two other contributions to the Eclipse open community at

EclipseCon. ILOG's Agile Business Rules Development methodology, in the form of an Eclipse Process Framework, and a Java-to-C# source code converter. ■

IBM TERMINATES MYSQL PROJECT

BY ROBERT MULLINS

In laying out a road map for its newly acquired solidDB database management software, IBM said on March 26 that its acquisition of Solid means the end of support for the solidDB-MySQL open-source project.

"The solidDB for MySQL open-source product is not going forward from an IBM development perspective," said Sally Hartnell, an IBM product marketing manager for solidDB, during a Web cast to customers, partners and news media. However, she added, the open-source version of solidDB, based on the MySQL database management system, would still be hosted at SourceForge.net.

On Jan. 30, IBM closed the acquisition of Solid Information Technology, a deal announced Dec. 21, 2007. The terms were not disclosed. The acquisition was quickly followed by Sun Microsystems' US\$1 billion acquisition of MySQL in February. Database software giant Oracle had made a similar move in 2005, acquiring InnobaseDB.

The Solid acquisition gives IBM its first in-memory relational database management software product. ■

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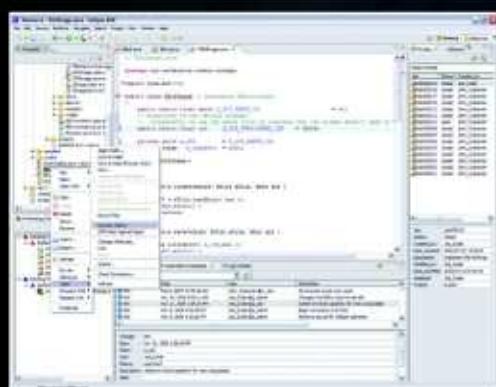
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Eclipse Mylyn tool suite cuts through Java complexity

BY ROBERT MULLINS

SpringSource, the commercial sponsor of the Spring open-source IDE, has come out with a tool suite that it said unravels the complexity of Java application development while enabling middleware development using the Spring portfolio.

The SpringSource Tool Suite is based on the Eclipse Mylyn project, which is aimed at reducing information overload in software development and easing multitasking.

The tool suite does so by identifying only the information relevant to the task at hand, the company said. Issue

PROTECODE PLUG-IN SPOTS IP PROBLEMS EARLIER

BY ROBERT MULLINS

SANTA CLARA — A plug-in that detects potential intellectual property issues with code before it becomes part of a software product rolled out at the recent EclipseCon 2008.

The development tool, introduced by Protecode, screens incoming code as it's being brought into a project to determine whether it is copyrighted or needs an open-source license to be used.

Protecode automatically creates a software "bill of materials," Protecode said, identifying and logging pedigree and licensing information associated with any external content.

The plug-in saves time because licensing problems are detected before the code is added to the project. Other tools for identifying intellectual property are used after the code has been compiled, requiring developers in some cases to go back and change code to comply with licensing terms, said Mahshad Koohgoli, the CEO of Protecode.

Although initially available only for use with the Eclipse framework, other versions of the plug-in will be made available for other languages and software infrastructures, the company said, without providing details. ■

tracking support and code quality analysis tools also are pre-integrated into the suite, which includes the Spring IDE as a core component.

The release of the tool suite

last month coincided with SpringSource's announcement that it has joined the Eclipse Foundation, which hosted the EclipseCon 2008 conference in Santa Clara.

The beta release will be followed by a commercial release, which is slated for this month, SpringSource said.

On Jan. 29, San Mateo, Calif.-based SpringSource ac-

quired Covalent, of Walnut Creek, Calif., which is known for its service and support of Apache Software Foundation applications, such as Apache Web Server and Tomcat. ■

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Developer Express uses LINQ for grid controls and data

BY DAVID WORTHINGTON

Microsoft's .NET Framework 3.5 has opened the door for grid controls to retrieve data more efficiently from a wider variety of sources with Language Integrated

Query (LINQ), and one more component supplier has jumped at the opportunity.

Developer Express released on March 31 LINQ-enabled grid controls for ASP.NET and Win-

Forms. Those controls are designed to perform data analysis and mining operations on large remote datasets from client machines by delegating intensive operations to database servers.

The controls, ASPxGridView and XtraGrid, are DevExpress' first components that utilize LINQ. They rely on LINQ providers to execute queries and retrieve the appropriate

amount of data from corresponding data stores, explained CTO Julian Bucknall.

LINQ queries are translated by the Framework's LINQ query processing engine and processed by the .NET Framework before being handed over to so-called providers for execution against a data store. Microsoft bundles three data providers with .NET, and customized providers can be used to access additional data types.

Bucknall explained that prior to adopting LINQ, DevExpress used its own eXpress Persistent Objects data persistence framework as an intermediary for controls to access database engines. Access was limited to supported databases, and it had proven impossible for customers to use their own data persistence frameworks with DevExpress' controls.

LINQ, by contrast, is indifferent to how data is stored, said Bucknall.

"By using LINQ, we are expanding the universe of data stores we can get data out of," he added. "We no longer care how data is stored—a database engine, a database engine accessed through another framework like Hibernate, or [in] XML—if there's a LINQ provider, we'll use it."

In a separate release, DevExpress introduced a new control for ASP.NET 2.0 on March 21 called ASPxTreeList. ASPxTreeList can visualize data as a tree, grid or a combination of both. Its data management capabilities include the ability to load individual nodes on demand, with callback support.

Thanks to this, the control never has to transmit the entire tree structure when it is being updated; it requests records from the server for the portion of the tree that has to be renewed. ■

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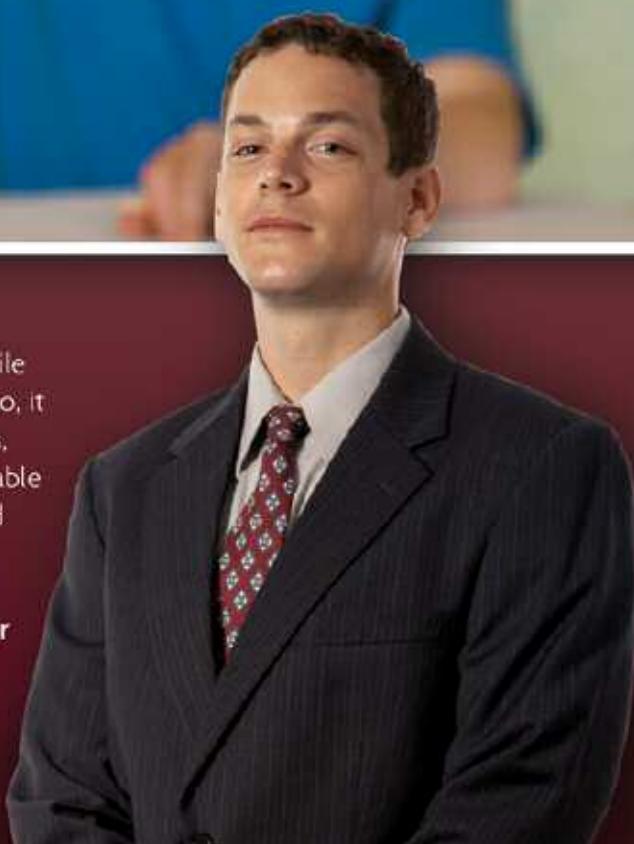
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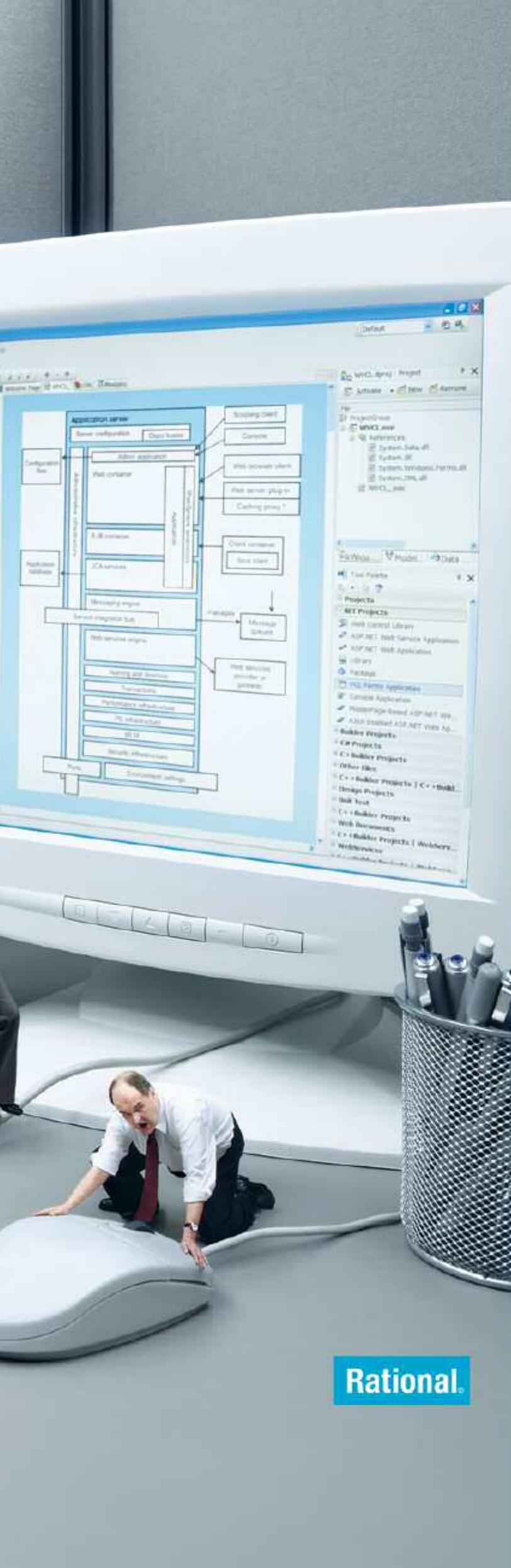
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Microsoft puts XAML into Open Specification Promise

◀ continued from page 1

engage its customers and the industry, including open-source communities.

The interoperability principles apply to the company's

high-volume business products, including Exchange Server 2007, Office 2007, Office SharePoint Server 2007, SQL Server 2008, Windows Server 2008 and Windows Vista, including the

.NET Framework and all future editions of those products.

Di Dio noted that by publishing the XAML documentation this early in its development, Microsoft was killing

three birds with one stone: promoting its brand, courting goodwill and developers, and keeping up with Adobe and its Flash platform, which competes against Silverlight.

Microsoft's Robertson noted that XAML is already fully documented on the MSDN Web site for developers using XAML to create Windows-based applications. XAML is now available for third parties to implement under OSP, meaning Microsoft has offered what it calls an "irrevocable promise" to companies that it will grant patent rights for claims that are necessary to implement XAML, without having to sign a license, pay a fee or inform Microsoft.

BUT HOW 'IRREVOCABLE'?

On March 12, the Software Freedom Law Center (SFLC) published a paper that outlines what Microsoft says it promises, compared with what SFLC believes it actually promises. SFLC claims that a provision defining covered specifications considerably weakens the OSP. It reads: "New versions of previously covered specifications will be separately considered for addition to the list."

The SFLC reasons that Microsoft's narrow definition of the covered specifications means that no future versions of those specifications are guaranteed coverage by the OSP. In short, each new version is subject to Microsoft's approval case by case.

According to the SFLC, Microsoft can effectively revoke the promise that it had applied to a prior version of a particular specification.

In a March 13 blog post titled "FUD," Gray Knowlton, a group product manager for the Microsoft Office system, characterized the SFLC's analysis as disappointing. He admitted that it was true that OSP only applies to listed versions of a covered specification, but noted that it was "unusual" to automatically include all future versions of a specification in such a license and pointed out that IBM has a pledge that is similar to Microsoft's OSP.

IBM does indeed offer a unilateral non-assertion promise, known as the Interoperability Specifications Pledge, which covers more than 150 specifications and protocols. Sun Microsystems has a similar pledge that it refers to as a "Non-Assertion Covenant," which selectively adopts new versions of covered specifications. ■

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Open-source alternative to Visual Studio

◀ continued from page 1

is creating a Dynamic Language Runtime for the .NET Framework as part of an effort to support dynamic languages such as Python and Ruby. And a 1.0 release may appear as early as the end of this year, according to the MSDN blog of Iron Python lead developer Dino Viehland.

MonoDevelop uses code-completion technology similar to Microsoft's IntelliSense, as well as source control integration. Miguel de Icaza, vice president of developer platforms for Novell, said on his blog the Mono team aims to release new MonoDevelop versions every half year.

Some incremental improvements already slated for MonoDevelop 1.1 include integrated debugging, new managed editors for ASP.NET and XML, and an MSBuild-based model to improve interoperability with the Visual Studio build system.

The MonoDevelop project is a code fork of SharpDevelop, an open-source Boo, C#, Python and VB.NET development environment; the projects diverged in 2003.

FILLS LINUX, MAC HOLE

"MonoDevelop does fill a gap on the Linux and [Macintosh] platform where developers don't want to run a Windows instance just to get a nice environment for .NET development," explained Hargett.

He noted that MonoDevelop provides an integrated unit test runner and an automated code analysis add-in, whereas Microsoft's free edition of Visual Studio—Visual Studio 2008 Express—does not. He added that SharpDevelop "goes one step further" than MonoDevelop by adding integrated code coverage measurement.

"To some degree, this indicates both MonoDevelop and SharpDevelop's closer alignment to .NET developers than Microsoft has," said Hargett. "Most agile developers do unit testing, measure code coverage of unit tests and use code analysis tools every day as part of the multi-faceted safety nets some agile processes espouse. Why Microsoft hasn't realigned its product with this reality is befuddling."

The feature sets of the open-source tools aren't completely lopsided, though. Hargett believes that Visual Studio Express's refactoring support is

ahead of its open-source counterparts, leaving both teams to catch up with Microsoft.

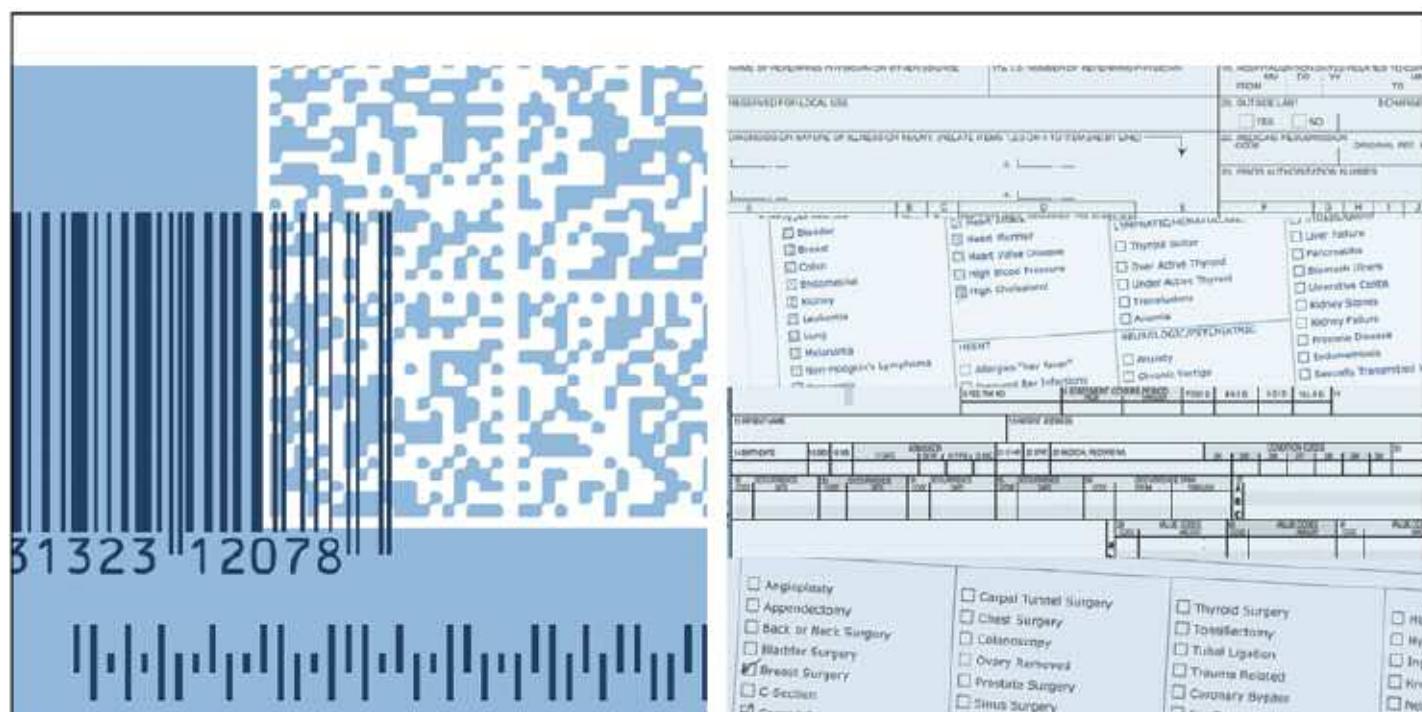
But one advantage the open-source IDEs do have over Microsoft, he explained, is that Microsoft limits the third-

party extensibility of Visual Studio Express. For example, Microsoft's EULA bars developers from integrating productivity-enhancing add-ins into it. Microsoft filed a lawsuit against TestDriven.NET in May 2007

for distributing one such add-in that provides testing functionality in Visual Studio Express.

"This is why [Microsoft] is starting to lose the very ground they gained from Sun in the last five years," he said in his e-mail.

"Sun is adapting and fostering a real community, having learned some of their lessons about why they were losing developer mind-share in the first place. The question is, 'Will Microsoft figure this out as well?'" ■



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Oracle acquires e-TEST

◀ continued from page 1

and performance conditions.

As Oracle pursues its SOA-based architecture and Fusion middleware strategies, the company needs a good life-cycle management portfolio for software quality control and change management, said Melinda-Carol Ballou, program director for application life-cycle management research at IDC. "The acquisition could be a step in that direction.

"Oracle and SAP customers customize the heck out of their solutions, so they need to be able to make sure that those customizations work," Ballou said.

Though Empirix brings Oracle key testing tools, the latter might need other acquisitions to augment change management and version control capabilities offered via partners, she added.

Until the deal is completed, Empirix will continue to operate its Web application segment in a business-as-usual mode. Other Empirix product lines are unaffected by the announcement. Oracle did not disclose terms of the deal.

To advance Oracle's evolution toward a SOA-based architecture and push its Fusion strategy, the company must present an effective services life-cycle management strategy, both for quality and change management, said Ballou.

The transition to Oracle ownership may be smooth for the majority of Empirix's 685 enterprise customers, of which 400 are already Oracle customers. Oracle's Enterprise Manager 10g suite, into which e-TEST will be added, is used by 21,000 customers worldwide.

Systems integrators stand to benefit because they can offer one vendor to address testing and other application life-cycle needs, according to Oracle's presen-

tation to Empirix customers and partners. The e-TEST line will benefit as well from Oracle's US\$2 billion R&D budget.

Empirix will continue to market its OneSight line of Web site-monitoring tools that track the performance of Web applications, manage user transactions and detect changes that could affect performance. Another major business line Empirix retains is the Hammer, which monitors applications delivered over VoIP or IP Multimedia Subsystem networks. ■

P.J. Connolly contributed to this story.

ORACLE'S SUITE DEAL

Oracle plans to acquire the e-Test software suite of Empirix, which would add three major products to Oracle's suite of software test and management tools:

- **e-Manager Enterprise:** a process management tool to define testing requirements, specify and execute tests to validate those requirements and manage the defects that those tests identify.

- **e-Tester:** a functional and regression testing tool for automating manual functional testing processes. It features a point-and-click approach to building Web application test scripts.

- **e-Load:** a testing tool for validating the scalability of Web applications. It's a collaborative load testing solution that can be accessed through a Web browser, emulating thousands of virtual users accessing an application to measure the effect of the load on performance.

Source: Oracle

AMD RELEASES PROFILER FOR ECLIPSE

BY ROBERT MULLINS

SANTA CLARA — Chipmaker AMD is releasing to the Eclipse community a free plug-in for analyzing the performance of Java code on multicore processors.

CodeSleuth is based on a profiler that AMD uses internally, called CodeAnalyst Performance Enhancer, to study code written for its own Opteron quad-core processors. AMD announced the contribution on March 18 at EclipseCon 2008.

The CodeSleuth profiler can read the performance counters embedded in the processors to determine how well the code is interacting with the processor. If it takes longer than expected to perform a particular action, or "method," the code can be modified to improve performance, said Rob Huryn, senior manager of developer outreach for software alliances and solutions at AMD.

CodeSleuth differs from other profilers because it provides more granular information on where to find the

problem code, Huryn said.

"Let's say this profiler is telling you that your system is spending 70% to 80% of your time in this [particular] method. If that method has 15 lines of code, that's great. You know which 15 lines of code to look at. But if it's 150,000 lines of code [it's harder]. What CodeAnalyst does is it points at the needle in that haystack," Huryn explained.

Developers must first download CodeAnalyst, which is free but not open source, in order to download CodeSleuth, which is free and open source, Huryn explained. Although it works on any processor platform, it includes some features that only work on AMD processors.

The contribution of CodeSleuth to the Eclipse IDE is AMD's way of helping software developers write applications that maximize the performance of multicore chips, contrary to the conventional wisdom that it's up to software developers to keep pace with processor advances, he said. ■

Microsoft finalizes Hyper-V, patches Windows Vista

Native hypervisor for Windows Server 2008

BY DAVID WORTHINGTON

Highly anticipated—and overdue—updates of Microsoft's latest server and desktop operating systems that respectively allow Windows to play better with virtualization and address a first round of performance issues are being delivered to customers.

Microsoft shipped a release candidate of Hyper-V, its hypervisor-based virtualization system, on March 19 and insists that it is on track to deliver the final version by August.

The delivery date for Hyper-V, formerly code-named "Viridian," has slid several times. At first, Microsoft intended to include Hyper-V with Windows Server 2008 as a virtualization infrastructure for enterprises, but fell short of that goal and bundled a feature-incomplete beta version instead.

Then, Microsoft promised to release Hyper-V within three months of the Feb. 29 launch of Windows Server 2008, but undisclosed delays in development precluded that goal.

Now, the company is committed to shipping the final Hyper-V code within six months of Windows Server 2008's release, which means a release candidate would have to be ready in July, said one analyst.

Greg DeMichillie, of Directions on Microsoft, explained, "To me, you need a month or two" with a release candidate, especially the first RC, "so there are no show-stopping bugs." But he noted that Microsoft is trying to fast-track some projects and Hyper-V is a likely candidate for such treatment. "In the old school, you'd need a month ... in the new school, who knows?"

Rob Enderle, founder of the Enderle Group, said that Hyper-V moves Microsoft into the virtualization market, where Linux is the preferred host operating system. He explained that Microsoft's goal is for Windows Server to be the host operating system—not just another virtualized guest platform.

Hyper-V can be used to test applications and plan future consolidation, business continuity and high-availability projects, according to Microsoft. It is central to the company's virtualization strategy and will be supported by Microsoft System Center suite, the next version of System Center Virtual Machine Manager, available in the second half of 2008, plus a spate of



DeMichillie said Hyper-V is a fast-track candidate.

third-party hardware and ISV partners.

The hypervisor's release candidate has an expanded list of qualified guest operating systems, including Novell SUSE Linux Enterprise Server 10, Windows Server 2003 Service Pack 2, Windows Vista Service Pack 1 and Windows XP Service Pack 3. It in turn runs on the Datacenter, Enterprise and Standard editions of Windows Server 2008, including its 64-bit varieties.

In addition, Microsoft said that it has improved Hyper-V's performance and stability, and the release candidate adds German and Japanese options.

But the delays in Hyper-V are a tempest in a teapot, compared with the widespread reports of problems with Vista. On March 18, the first service pack for Windows Vista was released on Microsoft's Windows Update distribution service, after a failed rollout earlier in the year.

Vista Service Pack 1 (SP1) is a collection of bug fixes, interoperability updates and security patches developed after the operating system launched in January 2007. Microsoft has also upgraded the Windows Vista kernel with SP1 to match that of Window Server 2008.

Vista SP1 implements changes to operating system features that are intended to keep the company in the good graces of the U.S. Department of Justice (DOJ). Microsoft modified Vista's Instant Search feature to allow third-party desktop search product makers to integrate their wares more closely with the operating system. Likewise, SP1 contains fixes for two browser overrides that were identified by the DOJ—instances where Microsoft software ignores the user's default Web browser preference.

In February, Microsoft temporarily suspended automatic distribution of Vista SP1 after it identified an installation issue that triggered an endless loop of system reboots. Nick White, a product manager for Windows Vista, noted that Microsoft believes it has "largely" eliminated the problem.

The third service pack for Windows XP (XP SP3) has been developed concurrently with Windows Vista SP1 and is expected to ship by the middle of the year. XP SP3 will establish a new baseline for the aging operating system, bringing together many fixes released in the years since 2004, when XP SP2 came out. ■



The OpenJDK, NetBeans 6.1 and Sun's acquisition of MySQL are expected to be on people's minds at the upcoming JavaOne 2008 in San Francisco (2007 photo).

JavaOne agenda takes shape

◀ continued from page 3

long one of "it's taking a long time to start up" for many.

Sun hopes that further improvements in NetBeans 6.1 will convince Eclipse users to switch to NetBeans. That's going to be a hard sell to some, whose positions Leonard summarized as, "I can't make the switch yet. I'm still going to use Eclipse as my editor."

Sun's Community One Day, on May 5, the eve of the show, will feature a whole track of tutorial sessions on NetBeans, Leonard said.

NetBeans now also includes support for MySQL, the open-source database man-

agement system. With the MySQL acquisition, closed in February, Sun now offers a complete LAMP stack—Linux, Apache, MySQL and PHP—in one NetBeans download, said Burton Group's Niski.

"I think that's a really strong story," said Niski.

Sun's plan also seem to include supporting a greater number of dynamic scripting languages, with the hiring in March of Ted Leung, a member of Apache Software Foundation and a Python developer at the Open Source Applications Foundation, and Frank Wierzbicki, lead implementer of the Jython project. ■

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LiMo picks up momentum, new member

Foundation ships Linux mobile platform on time; release 2 slated for this year

BY P.J. CONNOLLY

The continuing attempt to build an open, Linux-based platform for mobile devices took two steps forward late last month. Even better, the effort appears to be on track.

The LiMo Foundation has released—on time—the first version of the LiMo platform

software, which offers a set of APIs for application development based on what the foundation called an investment of hundreds of millions of dol-

lars. What's more, the foundation said it has accepted its first member from the semiconductor industry: Texas Instruments.

The LiMo platform allows developers to implement middleware components in C or C++. According to the foundation, LiMo release 2, now in the specification and development phases, is expected to be ready by year's end. At about the same time, the foundation expects to release SDKs for Java, native and Webkit environments, allowing developers to build mobile applications for a range of devices.

"This is an extremely exciting time to be part of the LiMo Foundation," said executive director Morgan Gillis in a prepared statement.

Meanwhile, TI has joined the LiMo Foundation as a Core-level member, assuming a seat on the board of directors and executive council, as well as the foundation's architecture and requirements councils. ■

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HANDSET OS SURFS WEB

BY P.J. CONNOLLY

A new version of a handset operating system is expected to give device manufacturers more opportunities to expand their product lines and perhaps someday bring smartphone features accessible to the feature-phone budget.

UIQ Technology announced March 27 that UIQ 3.3, based on Symbian OS 9.3, was available, along with a beta version of the SDK for the OS update.

UIQ 3.3 offers users the chance to surf the Web with the Opera Mobile 9 browser, with pan-and-zoom functions, and the ability to use Opera widgets. It also offers a full set of functionality to applications using the Mobile Services Architecture, also known as JSR 248.

The company, part of a 50/50 joint venture between Motorola and Sony Ericsson, expects to extend UIQ-based phones into the mass market and "bring a host of new opportunities for developers wanting to innovate on a powerful user interface platform," noted Symbian vice president for developer product marketing Antony Edwards, in a prepared statement. ■

Eclipse-based tool targets virtualized platforms

BY P.J. CONNOLY

An Eclipse-based development tool for deploying real-time virtualization technology on Intel systems became available this month.

VirtualLogix released VLX Developer 2.0, a tool designed for the company's line of virtualization products. VirtualLogix's platform allows conventional operating systems to share hardware with real-time OSes.

VLX Developer offers a drag-and-drop interface for configuring parameters for hardware and software running on the company's VLX platform. It can be used as a plugin for Eclipse and is available as a standalone RCP (Rich Client Platform) tool set. According to the company, it is validated for Red Hat Enterprise Linux 3 and Fedora Core 4 and 5.

Developers can use the tool to control such features as per-guest memory allocation, CPU assignments, guest OS scheduling and prioritization, inter-guest communications, virtual memory management unit operations, and the assignment of I/O interfaces to a particular guest OS.

VLX Developer also allows

for configuration-based system builds, file preparation and boot-time command options. Moreover, developers can monitor all aspects of a virtualized platform, including graphical display and capture of utilization

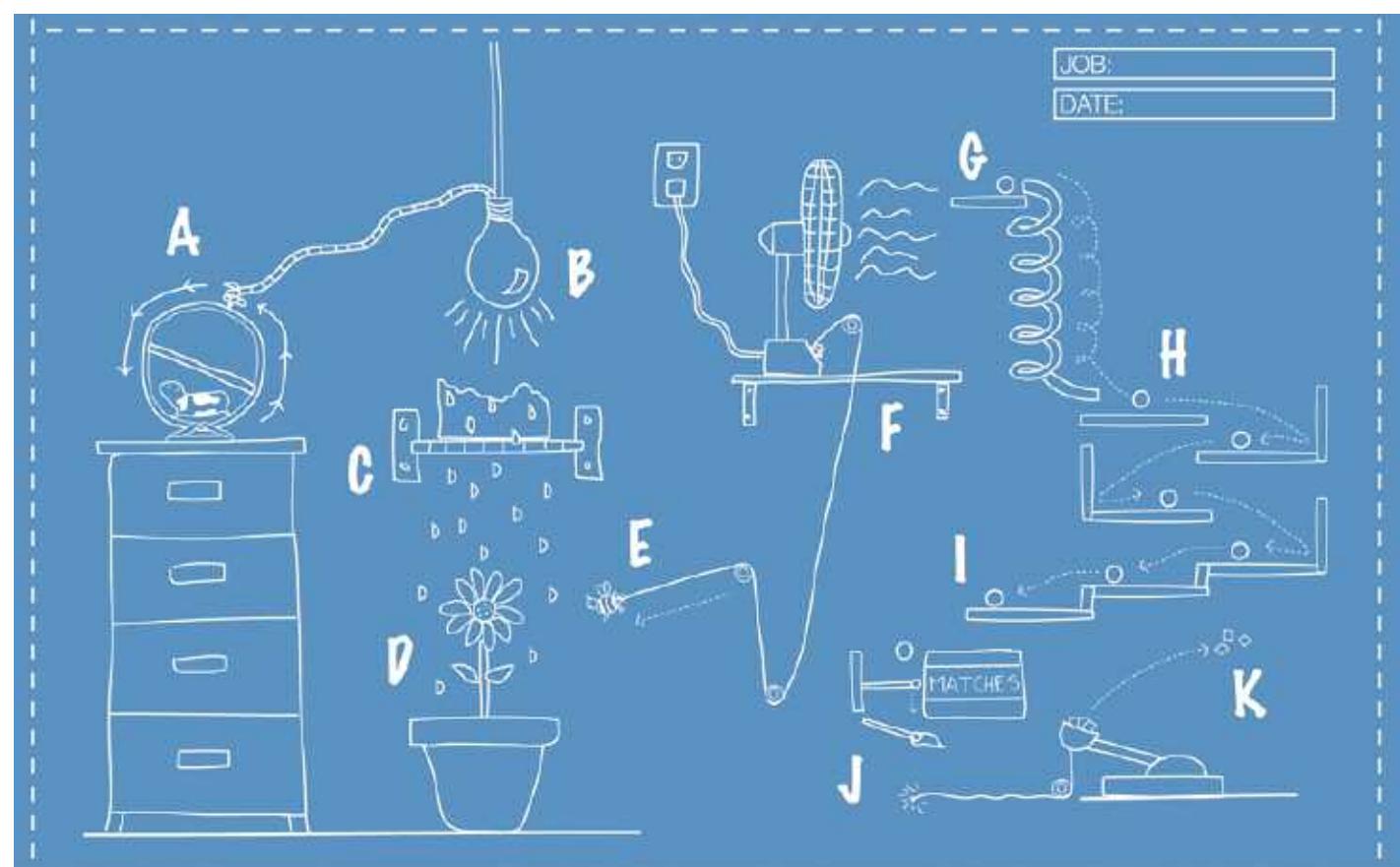
data on a per-core and per-guest basis. For guest OSes that have to share a single core with others, it offers operating system dwell time counters and OS-to-OS context switching.

The company also an-

nounced that a new release of VLX for Network Infrastructure had shipped, bringing real-time virtualization for Windows environments to its platform, allowing the use of Microsoft's operating system family as

guests. The company noted that both native BIOS and native Windows SMP guest modes can be employed, with memory and network interfaces shared across guests, if desired.

VLX Developer is licensed per seat; certain product development configurations also include VLX Developer. ■



ColdFire gets ThreadX RTOS tooling support

BY P.J. CONNOLY

Developers writing applications for Freescale's ColdFire processors got a boost March 31 when two embedded systems stalwarts joined forces.

RTOS supplier Express Logic and toolmaker IAR Systems announced that IAR's Embedded Workbench was a supported platform for developers using the ThreadX RTOS from Express Logic to write software for ColdFire-based applications.

IAR Embedded Workbench's debugger has been tweaked, according to the companies, to be "ThreadX-aware." It allows developers to view kernel-level objects, including mutexes, queues, semaphores and threads during application development. The workbench suite also offers a C/C++ compiler, assembler, librarian, linker, project manager and text editor, and works with ColdFire V1, V2 and V3 cores. ■

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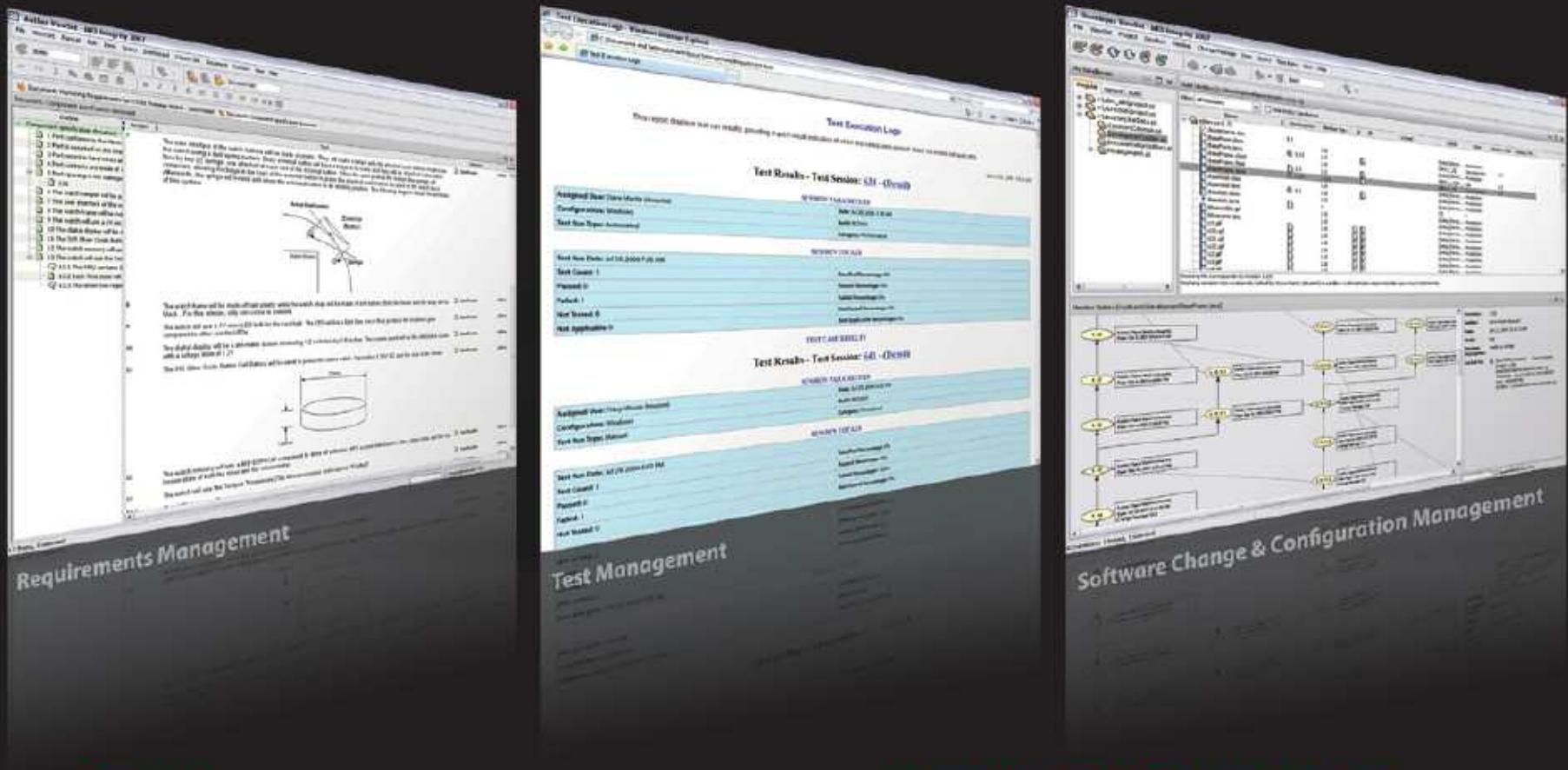
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ALM expands its palette

Software companies oversold the vision and underdelivered the tools. ALM 2.0 promises to be a suite of a different color.

BY JENNIFER DEJONG

They admit it: Early ALM suites never really delivered. Now, aiming to make good on earlier unmet promises, ALM toolmakers are offering a new vision of application life-cycle management. In an about-face, toolmakers are de-emphasizing the importance of a single set of tools from one provider. They say the new ALM focuses instead on the process and information that connect those tools—and on moving businesses a step closer to the elusive goal of delivering better applications, faster.

Essentially sets of tools encompassing requirement management, architecture, coding, testing, tracking, release management and more, early ALM offerings were promoted as the unified approach to the entire life cycle. At any time, analysts, coders, testers and other participants in the application development process could see what others were doing, and where a project stood—or so the vision went. Which requirements have been coded, tested and released? Which are still works in progress?

That was the vision, but in reality answers to those questions were hard to come by, and the notion that the right hand always knew what the left hand was doing was greatly oversold. "We haven't delivered on the unified vision, and we are all equally guilty of selling it," said Rick Jackson, senior vice president and chief marketing officer for ALM toolmaker Borland.

Early ALM suites were made up of siloed tools, which offered only limited ability to share data, said IBM Rational director of offerings management Ashok Reddy. "The integrations were fragile." Connections among the tools in ALM suites were little more than point-to-point links, he said. "The tools need to fit the way people want to work, not the other way around," added Cliff Utstein, vice president of marketing for software configuration management toolmaker AccuRev.

A key reason why integrations among tools were limited is that many ALM toolmakers built their suites by buying companies to fill in the tool gaps, said Reddy, referring to IBM's 2003 purchase of Rational Software, among other acquisitions. [see box, page 34] A complete set of tools in hand, they set out to enable

continued on page 32 ▶

After an oversold vision, ALM strives

◀ continued from page 31

the disparate offerings to work together. But because each tool defined the concept of a project differently, it was difficult to do much more than just share data, said Reddy. "Some tools see a

project is a set of assets. Some define it as a set of code."

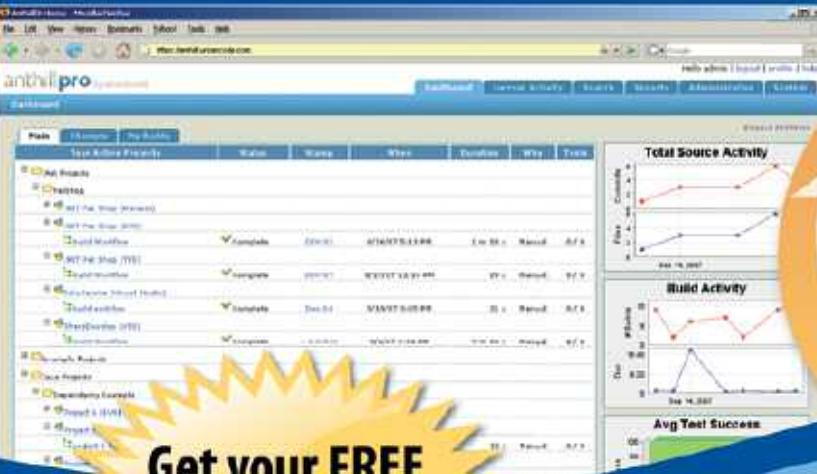
Forrester analyst Carey Schwaber agreed that true connections weren't really there. "Just because [an ALM suite] has a requirements tool and a

testing tool doesn't mean that you have a connection," she said. And enterprise customers have not built those connections themselves. "They say: 'We understand the [ALM] vision but we are not there yet.'"

The real world is very different from the aspirational view of things, said Dan Koloski, CTO and director of strategy for testing toolmaker Empirix. "As a vendor, part of the job is to outline [those aspirations] to

give guidance. But you also have to live in the reality of the user experience." Everyone understands, for example, that testing should happen earlier in the software development cycle than it does. "But we live in the world of tight deadlines and inconsistent staffing," Koloski said. That makes it difficult to always live up to the ideal way of doing things, he said.

First-generation ALM offerings were "the software equivalent of having multiple screens on your desk," said Gartner analyst Jim Duggan. It's no surprise, then, that the development teams that used them—or those that simply listened to toolmakers' marketing claims—are skeptical about the next-generation offerings. But the new ALM—sometimes referred to as



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WHAT, EXACTLY, IS ALM 2.0? AND ARE WE THERE YET?

It sounds like a software version number, or a standard for toolmakers to adhere to. But the term "ALM 2.0" is neither. A play on Web 2.0 (and everything else "two point oh"), ALM 2.0 generally refers to both a more sophisticated set of application lifecycle management tools and a more effective way of working with them than the early tool suites.

With ALM 2.0, users of design, requirements, coding, testing, release management and maintenance tools can see at a glance who is working on what, when they started working, and which requirements have been coded, tested and released, and which are still sitting in the queue. That was difficult to do with earlier offerings, now referred to as ALM 1.0. Integrations were rudimentary, largely because many ALM suites were built by acquisition. The tools within them were not designed to work together from the ground up.

The term "ALM 2.0" was coined by Forrester analyst Carey Schwaber, who characterizes current offerings that are based on a single repository as ALM 1.5. "But we are still waiting for ALM 2.0," she said. —Jennifer deJong

to broaden its palette

ALM 2.0 [see box, page 32]—is not just talk, he said. “It is designed in a very different way.”

The suites de-emphasize individual tools for requirements, coding, testing and so forth. Instead, they are designed around a “common stack of control data,” Duggan continued, where the tools fit in around that data. That common set of data is most often achieved through the use of a single repository, which provides different views of the same information, depending on whether the user of that data is concerned with requirements, coding, testing, and so forth. “It is a single view of the truth, as opposed to multiple copies of the truth.”

Forrester’s Schwaber put it another way: “ALM is the connection between the tools, not the tools themselves.”

Voice Media analyst Theresa Lanowitz did not disagree, but her vision of ALM 2.0 includes line-of-business professionals, not just analysts, coders and testers. The distinction is important because it places the responsibility for application development with departments that will actually rely on the software to conduct business, she said. “The line of business says, ‘This is the project we want [to develop], and IT is working with us on it.’”

Under that model, IT reports to the line of business, enabling IT to become part of a profit center, instead of continuing to be seen as a cost center. The new setup allows enterprise development organizations to achieve with the same level of efficiency as a commercial software company, Lanowitz said. “Large enterprises often have 200 developers working on a project. Commercial software companies have five developers working on the same size project. It’s so mind-boggling to me.”

Also central to the new ALM concept is reporting, said Steve Dykstra, a product management director for ALM toolmaker Compuware. “Management is asking for a deeper set of metrics.” Reports can show not only what percentage of a project is complete, or how many people are working on a project, but also which projects have the highest degree of risk and complexity.

“It’s really about getting that information to the right people

when they need it, without bludgeoning them with data [they don’t need],” said Gartner’s Duggan. The new ALM offerings can automatically create meaningful reports, without requiring tool users to stop work

and enter information about the activity at hand. For instance, as a developer checks code in and out and makes changes, history is automatically collected against the work item, he said. “Developers don’t need reporting and

metrics to do their jobs. But the team needs them,” he added. “When the [business] user says, ‘What the heck is this?’ you need to be able to trace [the feature] back to the requirement.”

Buyers and sellers alike knew

that early ALM was all about buying the right set of integrated tools from a single provider. The new ALM acknowledges that particular approach never gained traction with customers. “It’s

continued on page 34 ▶

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ALM widens palette

◀ continued from page 33

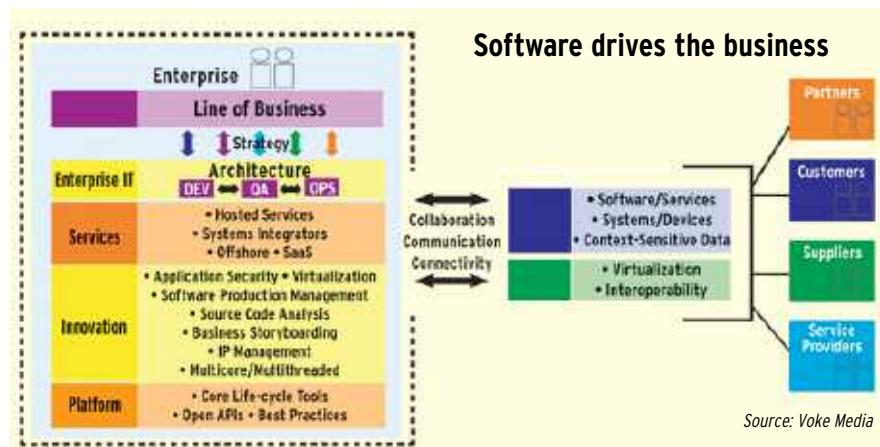
unrealistic," said Borland's Jackson. Customers have made investments in software from more than one provider, and they are not going to rip and replace. If they want to use Telelogic DOORS, for example, instead of Borland's own requirements tool, Caliber, with Borland's ALM offering, so be it, Jackson said.

Borland's ALM strategy and forthcoming offering are based on that idea: letting customers plug in competitor's tools if they want to. But even ALM toolmakers that aren't embarking on that strategy acknowledge that the ability to do that is important. "You have to pro-

vide bridging, and an open API makes that possible," said Ellyn Winters-Robinson, vice president of marketing for ALM toolmaker MKS.

IBM Rational's Reddy said, "It does not matter whose tools you are using." ALM toolmaker Serena Software echoed that view. Asked whether the ability to plug in competitors' tools is important, senior director of product marketing Nathan Rawlins replied, "Yes, the ability to do plug-and-play is part of the life-cycle framework."

There is a lot of churn as customers wait for toolmakers to deliver this more-open ALM vision, said Forrester's

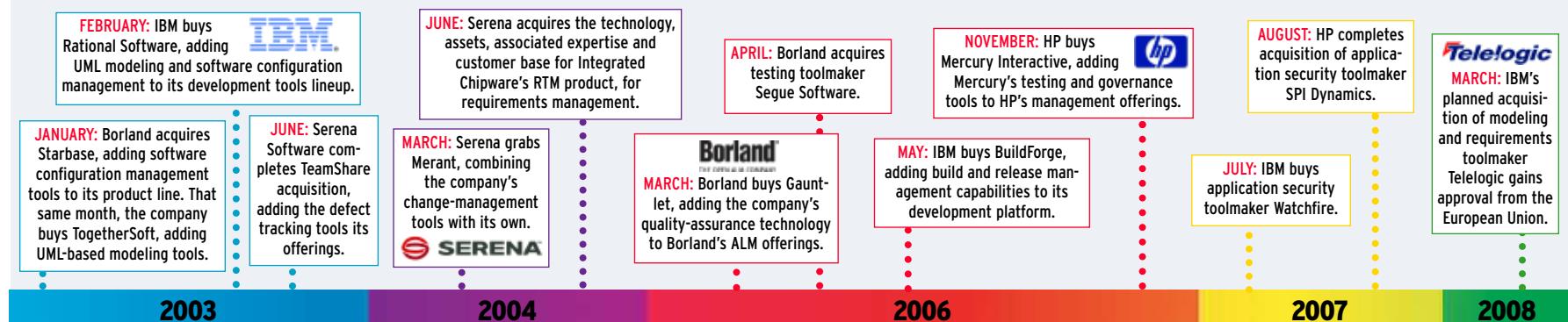


Schwaber. "And a lot of them aren't optimistic anymore." The ability for all parties to share data, and collaborate in a meaningful way, has been promoted for

so long, said Gartner's Duggan. "How do you introduce the tools that finally deliver on that vision—when you have talked about it for so long?" ■

ALM'S HISTORY OF MERGERS AND ACQUISITIONS

In many ALM suites, individual tools were bought, not built. That's a key reason one toolmaker's offerings for requirements, modeling, coding, testing, change management and more don't always work well together. Here's a snapshot of key ALM acquisitions over the past five years.



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FROM THE EDITORS

MonoDevelop bemusement

A great deal of hard work went into creating MonoDevelop, an open-source IDE for C# and other .NET languages. MonoDevelop has established a viable entry point to .NET on non-Windows platforms and has a compelling feature set. Less certain, however, is whether there will be broad interest outside the Mono community and what possible impact it could have on .NET development.

When it comes to features, MonoDevelop is nice. It supports more languages than Microsoft's Visual Studio, and the addition of its integrated unit test runner and an automated code analysis add-in might give MonoDevelop an edge over the freeware Express SKU of Visual Studio. But nice doesn't always cut it.

What's the point of having an open-source alternative to Visual Studio when Visual Studio is keeping many developers satisfied? Keep in mind that MonoDevelop is not the only IDE of its kind: SharpDevelop is competing for open-source mind share. Certainly the price—free—is attractive for some developers. But, for enterprise shops, that's not reason enough to migrate from Microsoft's de jure official development suite for .NET.

.NET is growing in popularity within the enterprise, and Microsoft's tooling has consistently received favorable reviews, even from the software giant's critics and competitors. In addition, Microsoft is shoring up the platform with each new release; Visual Studio 2008 even can be configured to display the .NET Framework's source code for debugging.

Microsoft furnishes developers with nearly everything they need to develop and support .NET applications, and enterprises that can afford to hire programmers could absorb the cost of an MSDN subscription or a single copy of Visual Studio without the subscription.

The Express edition of Visual Studio is suitable enough for academics, hobbyists and students to learn the ins and outs of .NET languages, and there is a body of supportive tutorials available online. While they're not as ambitious as MonoDevelop, they are free and they are canonical.

We see no evidence that there is a critical mass of developers pining for a Visual Studio alternative that runs on Linux and Mac OS X.

Why don't the MonoDevelop and SharpDevelop teams pool their resources to create a truly compelling product that is more appealing to developers than Visual Studio? That could upend the notion that Visual Studio and Windows are necessary to create applications based on the Common Language Infrastructure (CLI), on which the Mono development platform and .NET are based.

Another idea: Why not team up with the Eclipse Foundation and do the work necessary to let Eclipse become a first-class development suite for C# and .NET applications? That would provide the free cross-platform alternative, while leveraging a wealth of existing plug-ins and commercial offerings.

ALM 2.0: The right direction

Some big names in the software tools industry loved, absolutely loved, the concept of application life-cycle management suites. Go to your favorite tools provider, write a check, and each one of your developers would have everything needed for designing, writing, testing and deploying apps. All in one box, all from one source, all for one price. What could be better?

Unfortunately, the consensus is that the early ALM suites failed to deliver the integration that marketers had promised. Instead, many of those suites were bundles of individual siloed tools, consisting of products purchased to fill gaps in a vendor's product line. While the vision was clear, the execution was lacking.

Today, we have ALM 2.0, which focuses on communication and connectivity, instead of functional check boxes. While analysts disagree as to exactly what constitutes the next generation, everyone can agree: It's time for the sellers to deliver on their promises. ■

LETTERS TO THE EDITOR

Hardware dependencies

In reference to "Intel and Microsoft invest in parallel programming research," (<http://www.sdtimes.com/content/article.aspx?ArticleID=31854>), it is always interesting to read about these initiatives between software vendors and hardware suppliers. One thing that strikes me is that we need to keep interfaces and protocols from getting hardware dependencies.

Research in optimizing either side of an interface or a protocol is very effective. But one thing that is lacking in research and that also should prove effective when in a multithreaded architecture is how to version objects handled in this environment.

PID is a straight ID without a version and no possibilities to show relationships.

In my world with version handling, one of the most important aspects with the version of objects is the relationship of the versions. For example, who is the predecessor of whom.

In a multithreaded environment, this should enable processes to be less timing-dependent and should enable the OS to decide in critical situations what thread is prioritized. It also would make the so-called merger of the results from the different cores easier to make.

I wonder why the simple ID and version is not used by the operating system and the rest of the architecture. It could centralize a lot of the decisions made using difficult comparisons today.

John Zingmark

MOBILE, CE ARE SEPARATE WINDOWS OPERATING SYSTEMS

Your editorial, "Democracy Transcends Closed Source" (March 1, page 40), contains an error. It states that "Windows Mobile is apparently at the heart of many touch-screen systems." Actually, that would be Windows CE. While Windows Mobile is based upon Windows CE, they are most definitely not the same and their names should not be used interchangeably.

Nino Benvenuti

FOR A REAL PROGRAMMING PROJECT, IS PYTHON FASTER?

I wanted to comment on Larry O'Brien's recent column, "ResolverOne Makes Extreme Programming Case" (March 15, page 32). In particular, I take exception to the notion that Python is adequate for a real programming project.

The fact that 30,000 lines of code took 110,000 lines of tests is a real indictment of the language. My guess is that a significant portion of those tests are addressing potential errors that the compiler would have found in either C# or Java.

Moreover, all of those unnecessary

tests take a lot of time to write, time that could have been spent working on the application. The notion that writing in a language like Python is "faster" seems absurd when you look at all of the extra work required to make the resulting program reliable.

The fact that it took two years to write a 30,000-line program seems to support my view.

Alan Holub

QUESTIONS INTERPRETATION OF ENERJY RESULTS

Andrew Binstock's article on cyclomatic complexity ("Debunking Cyclomatic Complexity," March 15, page 33) is based on a misreading of the Enerjy results, and, as a result, is itself misleading. I've blogged on this misunderstanding at <http://peripateticaxiom.blogspot.com/2008/03/debunking-ebunking-cyclomatic.html>.

Keith Braithwaite

DON'T IGNORE THE HIDDEN COSTS OF A PRODUCT

CodeGear's Jim Douglas has found a marvelous platform from which to advertise the advantages of his company's Eclipse-based solution ("Realizing the Value, Cost of Open Source" (March 1, page 41). It's too bad that he finds it necessary to denigrate other commercial enterprises' desires to leverage free and open-source software products to their advantage, perhaps even into their product lines.

I think we all know that there may be hidden costs associated with using open-source software, but we also know that any one vendor's products will also burden us with other, though maybe different, hidden costs.

Donald H. Locker
PTM Electronics

'PATENT' AND 'COPYRIGHT' DIFFER WHEN IT COMES TO INFRINGEMENT

Regarding P.J. Connolly's article "Busy-Box Copyright Suit Settled" (April 1, page 23). The first sentence of this article refers to a "patent infringement lawsuit," even though the case being discussed is for copyright infringement.

Copyrights and patents are not the same thing—not even close.

Tyson Wright
Hubbert Systems Consulting

WHAT DO YOU THINK?

SD Times welcomes feedback. Letters should include the writer's name, company affiliation and contact information. Letters become the property of BZ Media and may be edited for space and style. Send your thoughts to feedback@bzmedia.com.

Eclipse tests Darwin's theory

What is the major factor in software evolution: short-term survival of the fittest or long-term strategic cooperation? For a hint, look at Eclipse, an open, extensible development platform built on a mechanism for creating, integrating, and running modules called plug-ins. Put another way, Eclipse provides a common infrastructure for tool providers to plug in their tools.

Franco Gasperoni



Guest View

The Eclipse project is run by the Eclipse Foundation, and most of the people behind Eclipse's plumbing are on the payroll of companies that have a vested interest in Eclipse. Eclipse, and the Eclipse Foundation, is an example of a software cooperative. Its business purpose lies more in cost reduction than in revenue generation.

At the root of software co-ops, such as Eclipse, is the idea of pooling R&D resources to work on and share a common technology base, which is then tailored and adapted by each member of the co-op to its needs and those of its customers.

And where does Darwin fit in all this? In 1902, Peter Kropotkin wrote a book, "Mutual Aid: A Factor of Evolution," in which he described how in animals in Siberia must work together to stay alive, as opposed to competing for resources. Throughout his book, Kropotkin stresses that cooperation is the main factor in evolution, rather than the competing forces as described by Darwin and his supporters.

It is precisely this drive for cooperation to solve a mutual problem, too hard or too costly to solve alone, that is the business case for the Eclipse co-op.

You have heard of ecology and economics. Have you ever wondered about "eco"? In ancient Greek, "oikos" means house. In Latin, oikos evolved into "oeco," which means household. Thus, at the root of an ecosystem, such as the one for Eclipse, you find a household with its internal exchanges, connections and inter-plays. This household is the co-op.

Industrial cooperation is not new. The Airbus consortium, created in the 1960s, exemplified a cooperative effort across aerospace companies and nations. What is interesting, and what the Free Software and Open Source movements have shown in the last decade, is that the idea of cooperation can be applied to the development and evolution of software.

So, should we cooperate or extinguish? As we peer down the software evolution chain, let's remain focused on Eclipse. Its obvious evolution is to become Web-based. By that, I mean that Eclipse itself should be a Web application, much like Google Apps.

Why do you want to keep a rich (read heavy) client on your machine while most of the time you read or write text—something a browser is perfectly capable

of doing efficiently without bogging down your machine? And this is without even mentioning collaboration.

Yes, I hear you. At the graphical level, Web-based applications, even with lots of AJAX, are not where Eclipse is today. But who cares? Do you need all those whiz-bang widgets, and are you sure Web technology won't be able to go beyond that in a few years?

We're seeing evolution at work. As the surrounding IT environment changes, the software creatures that populate that environment must evolve. Making Eclipse Web-based is the way to go. The Internet promises a universal lightweight client that can display rich content with which you can interact, and a common platform for developing user interfaces. Today's fiction, tomorrow's reality.

What's the difference between a Web browser and Eclipse? The browser is for everyone, Eclipse for software developers. The browser is a developer's nightmare—have you ever mixed HTML, CSS and JavaScript and gotten the same results on different browsers? Meanwhile, Eclipse gives you a consistent, high-level UI paradigm. The browser is lean and fast. IT apps that use browsers for their UI are easy to admin, deploy and update. Not so for Eclipse-based technology.

Think about a platform offering the advantages of both Eclipse and a browser without their disadvantages. Pretty cool.

Making Eclipse Web-based is a major software evolution. But can the Eclipse co-op make the turn? Can its members make it happen? And who could these members be? The answer is: those who have something big to lose if they don't and those who have something big to gain if they do. In a nutshell, it is those people who have a vested interest in making the Internet promise a reality, badly.

Let's start with Eclipse's strategic

members. The first obvious candidate is IBM's Object Technology International (OTI) labs, the folks who made Eclipse possible. On its third attempt, OTI labs did what nobody else had managed to do: a graphical toolkit with an API common to all platforms where the visual look-and-feel is that of your host machine.

Who else? In this long US\$5,000-a-logo list, you find at least two interesting candidates: Google and Adobe.

Google, with its apps technology, is the obvious candidate for working with IBM's OTI labs. Google has everything to gain. Advertising is its money maker. To turn ads into dollars and cents, Google must attract clicks and, hence, eyeballs. Search is good for that, but real apps are even better.

What about Adobe? Look in the direction of flash. The technology that was going to take over the Web but never quite did and at this point never will unless it becomes part of a bigger whole.

Now, let's look outside the Eclipse co-op, to companies that compete today but might not tomorrow. Sun and Microsoft come to mind. With its clear Open Source strategy, Sun is regaining momentum. Its Open Office division would be an ideal candidate to work with IBM, Google and Adobe. Microsoft's latest attempt to buy Yahoo is a bid to position itself as a major Internet player.

One more. Blink, an obvious one. The Mozilla Foundation, which is where Firefox and Thunderbird come from.

IBM, Google, Adobe, Sun, Microsoft, Mozilla. Yes, there are some fierce competitors. As I said, the business purpose of the Eclipse ecosystem lies in cost reduction. The idea is to pool R&D resources to work on and share a common technology base on top of which each member constructs its apps to match business strategy.

Can the co-op turn Eclipse into the universal Internet platform? That's a challenge. Whatever the future, the rule is simple: Cooperate or extinguish. And that's part of natural selection. ■

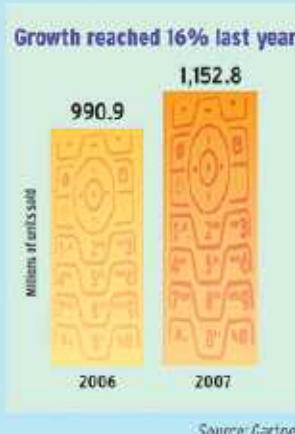
Franco Gasperoni is co-founder and managing editor of Adacore, which makes tools for Ada developers.

Mobile-phone unit sales pass a billion, but slower expansion seen

End users' purchases of mobile phones worldwide broke the billion-unit mark last year, according to Gartner. But the 16% jump from 2006 is expected to taper off, with growth this year estimated to come in at 10%.

Much of the expansion is coming from emerging markets, particularly China and India. The company's research indicates that whereas the markets in Western Europe and North America are driven by operator contract terms and equipment replacement cycles, any recession in those areas will be offset by developing markets, where many customers are still buying their first mobile phones.

The Gartner report, "Dataquest insight: Market Share for Mobile Devices, 4Q07 and 2007," is available now.



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As Eclipse grows, will the natives get restless?

I spent the third week of March at EclipseCon in Santa Clara, where I heard a lot about the Eclipse Foundation's latest initiative, Equinox. The more I heard, the more I thought of the origins of "Eclipse"—a Greek phrase meaning "I am absent," presumably a reference to the temporary disappearance of a celestial body by another one that is occulting it to the observer.

Eclipse, as we all know, is the dominant IDE for Java. A recent survey by BZ Research, a sister company of SD Times, shows that Eclipse's market share is just as strong as ever, though the upstart number 2 player, NetBeans, has made significant progress during the past 12 months. Indeed, NetBeans' improvement is at the heart of my concern about Equinox.

Let's start at the beginning. NetBeans was the first major FOSS Java IDE. About a year later, in 2001, Eclipse came along and immediately emerged as a strong competitor. But its real triumph occurred when it was spun off by IBM in 2003 to the Eclipse Foundation, a vendor-neutral organization (though greatly influenced by IBM), headed by Mike Milinkovich, an early developer of Eclipse's predecessor, Visual Age. Milinkovich and the

foundation drove Eclipse past NetBeans on the strength of an ability to attract vendors and contributors to write plug-ins—technically called bundles—and thereby enrich the environment in ways that Sun, a vendor with a lot of history that works against partnering, could not compete against. As a result, Eclipse became the dominant Java IDE.

As Eclipse was attaining that success, it revealed its much larger ambition: to be more than a Java IDE. First, it added languages (C/C++, COBOL, then PHP and various other contributed editors), then quasi-related functionality (reporting, through the BIRT project, for example). Finally, the Eclipse folks began correcting you quickly if you made the mistake of calling Eclipse an IDE. Now it was a platform. In fact, platform seems a generous term; at best I'd call it a plugin framework.

This, however, was not the end of the tale. Eclipse has extended its ambitions even further. The Equinox project aims to develop an entirely new constellation of software projects around the core runtime component of Eclipse, namely

OSGi (an acronym for the now-abandoned name Open Services Gateway initiative), a plug-in framework developed for the embedded industry—especially automotive applications.

By shipping Equinox, the Eclipse foundation hopes somehow to create added value. How it can do so to

Eclipse is unclear. One idea advanced by Jeff McCaffer, the Equinox project lead, with whom I spoke at EclipseCon, is headless server applications based on a plug-in architecture. This is an interesting possibility, but what does it have to do with Eclipse? Therein lies the rub.

Eclipse qua Java IDE needs attention. That it is widely used does not hide the fact that it needs upgrading. The basic IDE still has problems. For example, one longstanding issue is the spurious error messages it emits in dialogs. Another is the problem of SWT on Linux platforms. A third is that SWT still does not do true rich text (despite the Eclipse name for its client-facing features: Rich Client Platform). In addition, cumbersome implementations of the workspace and

of perspectives make the IDE unnecessarily difficult to use, especially for beginners.

Those problems have existed for a long time and have been ignored by the Eclipse governing board. My concern is that by stressing new areas far afield from the original mission of a Java IDE, the Eclipse Foundation is indefinitely postponing improving its core product. BZ Research's survey of Java IDEs shows that most Eclipse users rely on Eclipse mainly for Java development, so the mandate for improving the Java IDE portion is still there.

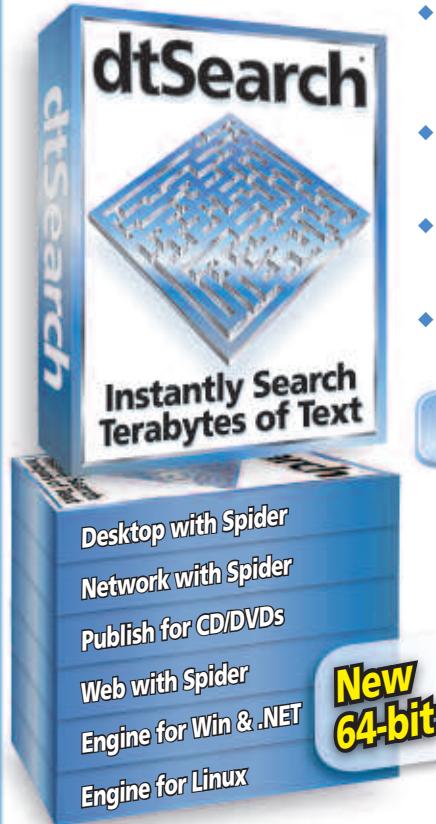
In a purely competitive sense, there is good reason to respect that mandate. NetBeans 6.0 has finally re-emerged as a capable competitor in terms of features to Eclipse—and superior in several ways—because Sun stuck to its knitting and continued to rev the Java support. In fact, it completely rewrote large portions of the editor for this release and thereby evolved into a truly superior tool. My view is it could catch up because Eclipse, despite all its marketing and dozens of actively promoted projects, was caught napping. So, while Equinox might be an interesting project, it's not clear whether it benefits Eclipse's primary users. ■

Andrew Binstock is the principal analyst at Pacific Data Works. Read his blog at binstock.blogspot.com.



Andrew Binstock

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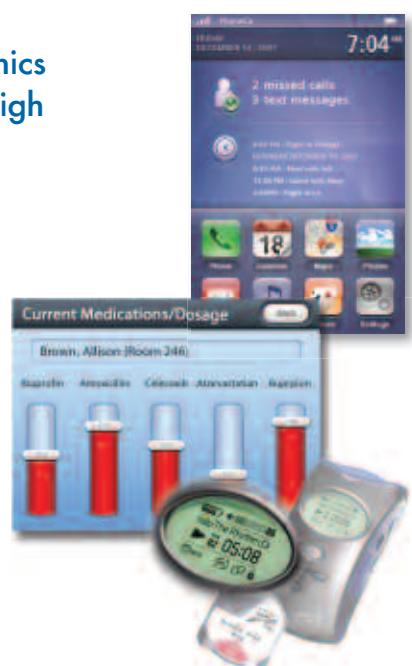
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Mythical man-minutes

One hopes that every software development manager has read Fred Brooks' "The Mythical Man-Month," a classic tale of the development woes of IBM's OS/360 mainframe operating system. This is not a recommendation based on the concept that reading the classics is good for you. Rather, it is based on the observation that the fundamental challenges of developing software have never been summarized as clearly and entertainingly, at least not until Brooks added a new chapter, summarizing the assertions of his text, for the anniversary edition of his book. Having said that, it is natural to wonder if the challenges of the Big Iron Era still pertain to our agile, Web-based world.

Into the 1970s, it was uncommon to separate software development from hardware development. This is, to me, the most glaring difference between the coding tasks of the 1960s and of today, not just the universal availability and use of higher-level languages, but, for most enterprise development, near-complete freedom from hardware and platform stability issues. Even high-performance embedded development now can often rely on a stable API. In those days, systems development traced its best practices back to military operational research; the approaches were best suited to the development of complex sys-

tems from scratch, in which the "system" included not only the software components but also hardware and the human operators.

Today, we hardly ever start with the perfect technology assumption and a context data flow diagram. Rather, we have a slew of assumptions (our jobs begin and end at the screen, there are mice and keyboards, we have color displays with lots of pixels, etc.) and probably barely pause at the next assumptions (preferred language, browser-based or native-client, database strategy). If we're smart, we look for a library or tool to give us pre-built infrastructure and scaffolding.

In practice, the major effect of that shift is that we can reasonably expect to get initial results up and demonstrable in a shorter time than was standard in the mainframe era. Software development cycles generally used to run 18 to 24 months long. Today, one expects a Web-deployed application to have visible progress every few months, at worst. Shorter development cycles are good. Even if the time to deliver full functionality remains the same (and I doubt that to be the case), the increased guidance from the customer mitigates risk tremendously.

Windows & .NET Watch



Larry O'Brien

An even greater difference, perhaps, is that programming in the large is now dominated by the Internet. We communicate via e-mail and IM, we put error messages into search engines before we crack a book, we hire resources around the world via an ad we post on Craigslist. The effects are many and varied, but I searched in vain for a proposition in "The Mythical Man-Month" that had been invalidated by our wired world. Certain anecdotes about communication and access might be anachronistic, but one famous point seems truer than ever: As a team increases in size, the overhead of communication increases non-linearly (since "the communication structure ... is a network, not a tree ..."). The ability to "copy all" on e-mail is primarily an efficient way to waste the time of all but one.

I have to admit to being surprised recently to have Brooks' Law—"adding manpower to a late software project makes it later"—confirmed. I recently found myself on the critical paths for two components of a client's project and could see no way to juggle my schedule given our laudably short development cycle. One component required a good deal of domain expertise, but the other

was a generic exercise in data-mapping: a complex XML schema whose nodes mapped to multiple other data sources. The decision-making process for each node was complex, but once you'd done a few and figured out where to look, it was essentially mechanical.

We thought that if we brought on a couple of more developers on the data-mapping task, I would be able to guide them along with about 25% effort, giving me 75% time on the hard domain task and delivering substantial progress on the data-mapping. Not so much. I spent somewhere between a third and half my time baby-sitting the newcomers as they explored every niche of the development, except the one where you check in new code. I'm sure that eventually they would have "spun up" and started delivering, but by the time they had their color schemes tweaked to perfection—or whatever it was they were doing—I was done with the domain task.

I'd always thought of Brooks' Law as involving teams with more than a handful of developers and on projects that had gained the inevitable layer of bureaucratic oversight that always accompanies delays. Yet here it was being borne out on a small team with a relatively straightforward set of tasks. I should have remembered another adage of Brooks: "All programmers are optimists."

Larry O'Brien is a technology consultant, analyst and writer. Read his blog at www.knowing.net.

The false value of reuseless?

SOA is growing steadily all over the world, a recent survey from Forrester shows. In the context of a flat-to-declining economy in the United States, this growth shows the commitment to SOA and architecture.

Specifically, the Forrester survey found that in 2005, 53% of enterprises were "using or planning to use SOA." By 2006, that number had grown to 62%, and in 2007 it reached 66%. More important, for the theme of the latest survey, enterprises with an "enterprise-level strategy and commitment to SOA" went from 18% in 2005 to 22% in 2006, and to 26% in 2007. In an equally important statistic, the percentage of enterprises reporting that they were not pursuing SOA and had no immediate plans to do so fell from a high of 47% in 2005 to 33% in 2007.

The notion and practice of SOA is expanding but ever so slowly compared with other technology trends. This is a good thing, considering the complexity and scope of SOA and the good or bad impact it can have on a business.

What's driving this movement is not so much the technology but the business benefit, as the Forrester survey revealed. Indeed, the survey found that

the business benefits of SOA are coming to the forefront and helping drive adoption of SOA. In essence, enterprises buy off on the business case and not the technology hype, which is also healthy.

However, while people are selling the reuse concept of SOA, reuse is typically not going to be the business driver. We've hit upon that topic many times in this column. The oft-touted reuse benefit of SOA is tricky, since the values of reuse are not always clear at first glance. Moreover, the value of agility, at the end of the day, far exceeds any value a good reuse program will bring you. The tough thing is to calculate the value of agility, and it varies greatly from enterprise-to-enterprise.

Of course, I've already been down this road, several times in fact. The core issue is that reuse, as a notion, is not core to the value of SOA—never has been, never will be. Not that you won't achieve reuse, and there is a benefit to reuse, but the value of agility, or creating an architecture that's changeable around the needs of the business, is far more valua-

able than any services you can share.

I'm not the only one to come to this conclusion. When speaking at a Gartner event last spring, I found that the analysts had the same data points. Thus, while reuse is a selling point for SOA, it's not really the core value of SOA. If you think this is causing confusion with those who consume SOA technology, you're dead on. Vendors sell reuse and deliver agility. Hopefully they will learn how to sell architecture and deliver value going forward. But many vendors still focus on the hype and buzzwords, not long-term systemic enterprise value.

Indeed, many developers and architects chase SOA with the belief that reuse is the core value. Thus, when reuse falls by the wayside, they consider SOA a failure. I've always stated that they are looking at the wrong metric.

We need to stop selling reuse as a core benefit of SOA, but I bet those who need that message are not reading this column.

I think reuse should be a goal, and clearly we've had that on our radar in



David S. Linthicum

IT for some time. However, the core benefit is the value of reusing, not that fact that you reuse. There is a difference. For those of you who are thinking that you cannot have agility without reuse, well, you're right. It's just a very different value proposition than reuse itself.

Reuse is the core issue around the need for SOA governance, best practices and technology. I agree that we need to measure reuse, no matter if it's occurring or not. I'm a big advocate of centralized control and management, albeit the typical enterprise is not. However, based on experiences, I suspect we'll not get to this kind of "mass reuse" anytime soon, so I would not worry about it too much right now.

So, it's good news overall. First, SOA is growing, and second, the business case is driving its growth. That's typically healthy when we consider how we followed, and then dumped, a number of technological trends in the past. However, SOA is far more than a trend: It's an architectural pattern and should have the proper amount of strategic consideration within the enterprise. Hopefully we're on the road to that goal. ■

David S. Linthicum is a managing partner at ZapThink. Reach him at david@zapthink.com.

SHORT TAKES

THE OFTEN-IGNORED "please turn off your cell phones" request to an audience took on added significance at a recent Churchill Club forum in Palo Alto, Calif., on the monster created by information overload.

The audience managed to go 90 minutes without a cell phone chirp, as a panel of IT experts advised how to control interruptions of e-mails, phone calls, IMs, text messages and all the other technology that supposedly improves one's efficiency.

Knowledge workers are "mercilessly bombarded" with information interruptions during the workday, said Jonathan Spira, chief analyst at the IT research firm Basex. Add the cost of the "recovery time" to return to the original task, which can be 10 to 20 times the length of the interruption, and you have a US\$588 billion productivity tax per year in the U.S. alone, based on an average hourly wage of \$21.

That figure seems inflated. If that task you're trying to complete is your monthly expense report and a customer interrupts with a \$2 million order, how is that a drag on productivity? Spira admits more research is needed.

— Robert Mullins

THE INTRIGUE AROUND THE Office Open XML fast-track ratification started to make me think that the next James Bond movie could do a lot worse, and probably will, than to have 007 ferret out a plot by SPEC-TRE to subvert ISO and throw the world into chaos.



With rumors circling of improper influencing of delegations, strawman voters and heaven only knows what else will have turned up by the time you read this, I'm not sure if I've seen a more compromised ballot. I used to live in Chicago, so I know a thing or two about crooked elections.

I suppose the situation could be worse. If standards bodies were politicians, the process would be a lot greasier and sleazier than it is, and even less would be accomplished. One more entry on the list of small favors to be thankful for ...

— P.J. Connolly

I HAVE USED GOOGLE DOCS when I have been in a bind. At a recent trade show, my laptop was not functioning properly when my editor was bouncing off the walls waiting for my story. An Internet kiosk came to my rescue.

Now, Google is demonstrating Google Docs with offline storage via Google Gears. That motivates me to test it out at home. My preferred productivity suite has been OpenOffice.org. I'm satisfied with OpenOffice, but its frequent updates and chunky installer (on Windows) leave something to be desired. Google Docs would always be up-to-date, but I question just how good it will get and whether it would be a suitable replacement for desktop software.

— David Worthington

IT'S AMAZING WHAT YOU CAN DO with a few lines of HTML or JavaScript code. Whoever thought of Web services and Web APIs was brilliant—give that person a cookie.

For many applications, the ability to leverage existing external services means

more than just reducing the cost of software development. It means more than merely reducing the time to market for a new application, or for added functionality to an existing app. In some cases, it makes the difference between "worth doing" and "not worth doing." To mention just a few of the mashups in which I have taken part:

After setting up a Google account, I used its calendar function to feed an XML list of events onto sdtimes.com. The new events functionality leverages the Google APIs to save our programmers a whole lot of work in building a calendar console for data entry and for parsing and formatting the data.

I used YouTube as a front end for republishing videos on several Web sites.



Set up a free YouTube account, and upload the video. Let YouTube do all the processing and format conversions. Then, it's one line of simple HTML to embed that video into any other site—and even enable autoplay upon load.

For a nonprofit organization with a simple Web site, I embedded a multi-function photo album using Flickr in just a few minutes. Earlier, that nonprofit wanted a blog, but its Web hosting company didn't offer one. No problem! Just set up a free account on Google's Blogger service, and use it for the front end. Then, just display the blog on the nonprofit's site using an RSS feed sent via FeedBurner.

Now, while those projects pale in comparison to a true enterprise mashup—and totally ignore quality of service, scalability and data security issues—they really made a difference in delivering non-mission-critical, but desirable, functionality quickly.

— Alan Zeichick

BUSINESS BRIEFS

Hewlett-Packard will acquire content management software maker **Tower Software**, a Canberra, Australia-based company that employs about 240 worldwide, HP announced. One of Tower's main products is Trim Context, an electronic discovery and compliance suite. The acquisition will add electronic records management to HP's existing e-discovery and compliance capabilities in information collection and retention. . . . **EMC** has made an offer to acquire **Conchango**, a consulting firm that specializes in developing custom applications. EMC executives said Conchango would improve EMC's ability to provide consulting services to customers in Europe and, specifically, the United Kingdom, where Conchango is based. . . . **Yahoo** and **Microsoft** have created separate grant programs designed to promote women's entrepreneurial skills. Yahoo's Seeds for Success program will award three female entrepreneurs with business grants of more than US\$25,000 each, along with mentorship and technical services. Microsoft will team with small business experts to offer women advice in starting and growing businesses. . . . Software configurable processors company **Stretch** has received US\$15 million in Series B funding from its venture capital partners **Worldview Technology Partners**, **Oak Investment Partners** and **Menlo Ventures**. Stretch processors

can be configured automatically with C/C++ programming tools.

EARNINGS: Oracle's fiscal 2008 third-quarter earnings per share rose 30%, to \$0.26, compared with the year-ago quarter, the company said. Third-quarter revenue climbed 21%, to \$5.3 billion, while quarterly operating income increased 35%, to \$1.9 billion, and net income was up 30%, to \$1.3 billion. . . . **Red Hat** posted fiscal fourth-quarter revenue of \$141.5 million, an increase of 27% from the same quarter a year before. The company announced full-year revenue of \$523 million, which it said was an increase of 31% from fiscal 2007 revenue. Net income for the full year was \$76.7 million, compared with \$59.9 million the previous year. . . . **TIBCO Software** reported record results for its first quarter. Total revenue rose by 17% from the year-ago quarter, to US\$146.6 million, while net income was \$5.5 million. Revenue for the year-earlier first quarter totaled \$125.7 million. . . . Wireless communications specialist **Smith Micro** reported total revenue of \$73.4 million for fiscal 2007, a 35% increase from the \$54.5 million announced the year before. Revenue for the fourth quarter of 2007 was \$20 million, up from \$17.2 million in the year-earlier quarter. ■

EVENTS CALENDAR

Software Test & Performance Conference	April 15-17
San Mateo, Calif.	
BZ MEDIA	
www.stpcon.com	
Silicon Valley Ruby Conference	April 18-19
San Jose	
SDFORUM	
www.sdforum.org/ruby	
DevConnections	April 20-23
Orlando, Fla.	
DEVCONNECTIONS	
www.devconnections.com	
Web 2.0 Expo	April 22-25
San Francisco	
O'REILLY MEDIA	
en.oreilly.com/webexsf2008	
Open Standards 2008	April 28-May 1
Santa Clara	
OASIS	
events.oasis-open.org/home/symposium/2008	
Software 2008	April 29-30
Las Vegas	
CMP MEDIA	
www.software2008.com	
CommunityOne	May 5
San Francisco	
SUN MICROSYSTEMS	
developers.sun.com/events/communityone	
JavaOne	May 6-9
San Francisco	
SUN MICROSYSTEMS	
java.sun.com/javaone/sf/index.jsp	
VSLive Orlando	May 12-16
Orlando, Fla.	
1105 MEDIA	
www.vslive.com/2008/orlando	
IDUG 2008	May 18-22
Dallas	
INTERNATIONAL DB2 USERS GROUP	
conferences.idug.org/ha	
BREW 2008	May 28-30
San Diego	
QUALCOMM	
brew.qualcomm.com/brew/brew_2008	
RailsConf	May 29-June 1
Portland, Ore.	
O'REILLY MEDIA	
en.oreilly.com/rails2008	
IBM Rational Software Development Conference	June 1-5
Orlando, Fla.	
IBM RATIONAL	
www-306.ibm.com/software/rational/events/rsdc2008	
TechEd 2008 Developers	June 3-6
Orlando, Fla.	
MICROSOFT	
www.microsoft.com/events/teched2008/developer/default.mspx	
Software Test & Performance Conference	September 24-26
Boston	
BZ MEDIA	
www.stpcon.com	
EclipseWorld 2008	October 28-30
Reston, Va.	
BZ MEDIA	
www.eclipseworld.net	

For a more complete calendar of U.S. software development events, see www.bzmedia.com/calendar. Information is subject to change. Send news about upcoming events to events@bzmedia.com.

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